

**Fauxmo**  
an Ensoniq Fizmo editor / librarian

## User Documentation

### v1.2.1

## Table of Contents

User Documentation.....	1
Table of Contents.....	2
What's New.....	3
Overview & History.....	4
System Requirements.....	5
Installation.....	5
Uninstallation.....	7
Authorization & Initial Setup.....	8
Usage.....	10
System / Setup.....	10
System.....	10
MIDI Setup.....	11
Randomization and Randomization Preferences.....	11
Default Preset.....	13
Application Size.....	13
Always On Top.....	13
Presets.....	14
Get Presets from Fizmo.....	14
Edit Here and on Fizmo.....	15
Send Presets to Fizmo.....	15
SysEx.....	15
Default Preset.....	16
Edit.....	17
Preset Name.....	17
Sound 1 / Sound 2 / Sound 3 / Sound 4.....	17
Copy / Paste.....	18
F I Z M O Knobs.....	19
Arpeggiator.....	19
Insert Effect.....	19
Global Reverb.....	19
Info View.....	21
Virtual Keyboard.....	21
Documentation & Help.....	22
About & Authorization screen.....	23
Acknowledgments & Thanks.....	24
Contact & Support.....	25
Copyright.....	25
Version History.....	25

## What's New

Fauxmo version 1.2 adds several exciting new features, as well as addresses a few small bugs identified in previous versions. Some of the new features include:

- \* Randomization! Fauxmo now has the ability to randomize sections within an Oscillator, the entire Oscillator, entire Sounds or even the entire Fizmo Preset. This includes the ability to specify which parameters in each section to randomize, as well as the ranges within which to randomize those parameters. Even Preset and/or Sound names (adjective / noun phrases) can be randomized. Trust me: randomization opens up an entirely new set of creative possibilities for sound creation!
- \* Added FIZMO knob real-time bi-directional control – this includes now correctly storing the state of the FIZMO knobs within each Preset, something that was not working in previous versions.
- \* Added new “Info View” window that provides more detailed info about specific parameters and functions. A significant amount of these details was gleaned from other Ensoniq documentation, for example for synths like the MR or ZR series; Ensoniq just omitted a lot of the detail from the Fizmo manual.
- \* When performing functions which require sending the entire Preset from Fauxmo to the Fizmo, (e.g. copy/pasting, changing effect algorithm, changing effect modulation destination, or randomizing), Fauxmo's user interface operations are now blocked with a grey overlay until the Preset has successfully been sent. This prevents too rapid SysEx transfers from being sent to the Fizmo, which can cause it to crash.
- \* Added graphic illustration of signal path flow through effects on the Global Reverb tab – this helps clarify how signals are routed within the Fizmo, to optimally use it's excellent on-board effects.

For a full list of additions and fixes, see the Version History section at the end of this document.

## Overview & History

The Ensoniq Fizmo is a powerful synthesizer, but much of that power lies locked in parameters that are not easy (or in some cases impossible) to access from its front panel. Historically, a computer-based editor, Emagic's SoundDiver, provided access to *all* of the Fizmo's parameters for editing, but sadly that application is no longer in production nor supported on current operating systems, and users who do manage to get it running (often as a “cracked” application within an emulation of an older operating system environment) struggle to keep it running reliably, and also have challenges in integrating it within the rest of their music studio environment.

**Fauxmo** represents my work in developing an entirely *new* computer-based editor / librarian for the Fizmo, and one which attempts to *improve* upon the original SoundDiver editor. This represented a particularly difficult challenge for two primary reasons: (1) the Fizmo's MIDI spec (including both SysEx and NRPN info) was never published by Ensoniq (the legacy SoundDiver editor was implemented using direct input from the Ensoniq developers themselves), and (2) the Fizmo uses an unusual 4 to 5 Bulk SysEx data encoding scheme that Ensoniq developed, obfuscating its SysEx transmissions and making their interpretation that much harder.

Fauxmo represents the results of a *long* reverse-engineering process, which included many components: (1) a working copy of the legacy SoundDiver editor; (2) clues from the Ensoniq MR-series MIDI SysEx documentation (which *was* published, and which shares some of the Fizmo's unique SysEx encoding and other structural features); (3) the building upon of previous attempts at deciphering the Fizmo that have been documented on the Internet; and (4) assistance from some of the Fizmo's original Ensoniq team, as well as from the author of the Fizmo module for the SoundDiver editor (see Acknowledgments & Thanks section for names and details).

The most significant improvement in Fauxmo alluded to above is one which allows for *bi-directional* editing of the Fizmo; unlike the original SoundDiver editor, which only allowed for editing within the application, Fauxmo allows for editing in *either* the application *or* on the synth's front panel, with changes on either being reflected dynamically within both (where possible). This is accomplished by using a hybrid of both SysEx and NRPN data exchange between the synth and Fauxmo.

Finally, a word about the name “Fauxmo” - it's pronounced “fomo”, and is meant to be a fun play on words. The French word “faux” meaning “fake” or “imitation”, so a “Fake Fizmo.” But also FOMO as in Fear Of Missing Out on this awesome synth's full capabilities!

## System Requirements



### Macintosh

- OS X 10.11.6 – 12.x, 64 bit required. Runs on both Intel and M1 chips.



### Windows

- Windows 7, 8 or 10, 64 bit required

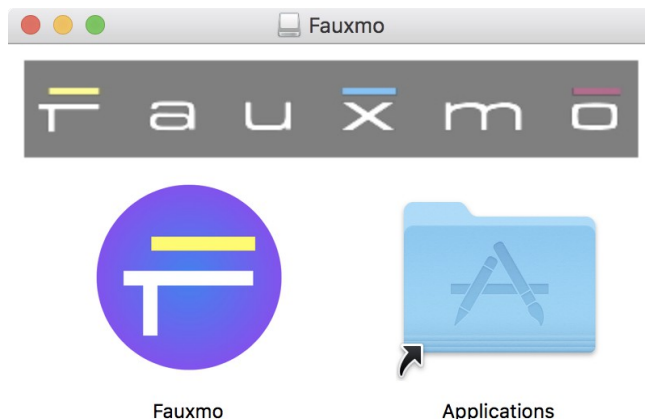
You will obviously also need a **MIDI interface** to connect your computer to your Fizmo. **This MIDI interface must be capable of reliable, bi-directional SysEx data transmission to your Fizmo.** Many cheap “cable” USB interfaces (MIDI DIN plug on one end, and USB plug on the other, with a “block” in the middle) are often not capable of this – check its SysEx capabilities with another app if in doubt!

## Installation



### Macintosh

The Macintosh version is supplied as a Macintosh disk image file (.dmg). Just double click the downloaded file, and you will see a new window appear on your desktop. Drag the Fauxmo application icon to the Applications window icon that you see – this will install the Fauxmo application on your computer:

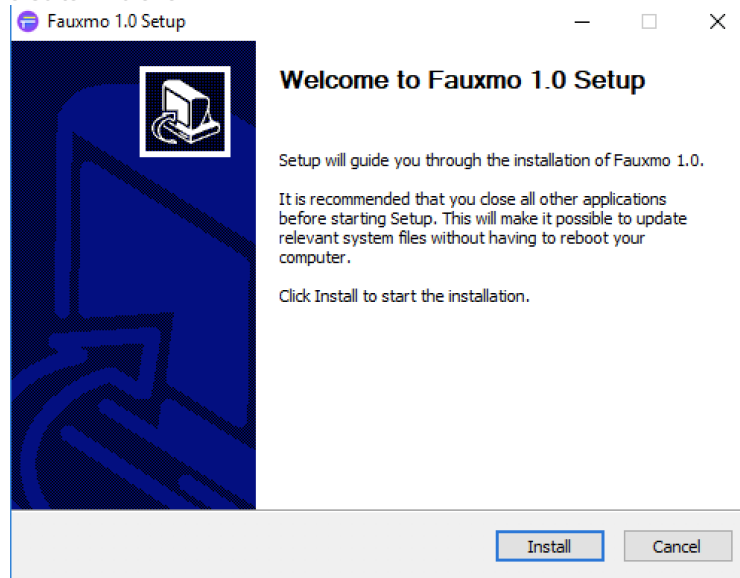


After the file has copied, you can unmount the disk image, and delete the .dmg file (or keep it somewhere safe if you'd like, for future installations).



### Windows

The Windows version is supplied as a compressed .zip file. Unzip the file, and you will be left with a file called Fauxmo Installer.exe. Double click this file to run the installer, agree to let the app make “changes to your device,” and then follow the installer instructions:



After installation, you will find a shortcut available to launch the Fauxmo application in the Windows Start menu.

## Uninstallation



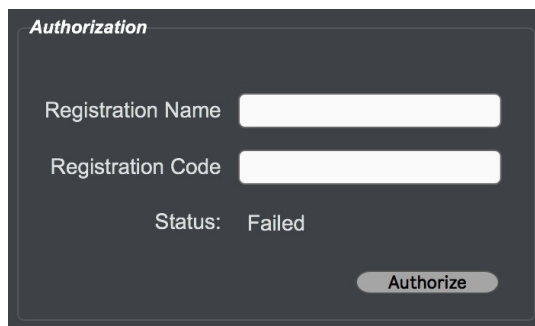
Macintosh – Just drag the Fauxmo application out of the Applications folder to the Trash.



Windows – Use either the Windows Add/Remove Programs control panel to remove the application, or use the Uninstall shortcut in the Windows Start menu.

## Authorization & Initial Setup

You'll need to authorize Fauxmo before being able to use it. Start the application (**please note that currently, the application takes quite a while to display its user interface – I'll be working on improving this in the future, but for now please be patient!**), and you'll find yourself at the About & Authorization screen:



Enter your Registration Name and Registration Code, and then click the Authorize button. Be careful, cApiTaliZation MaTteRs! If successful, the Status field will change to “Registered”, and you will see a “Use the App!” button, which when clicked will allow you to begin to use the software. If not successful, you will be left at the Authorization screen to try again.

To verify your authorization status, or to remind yourself of your Registration Name and Code, you can select the About Fauxmo menu item to be brought back to the About & Authorization screen at any time. You can also click the Fauxmo logo in the upper left to do the same thing.

Upon successful first authorization, you'll be placed on the System/Setup tab, where you must set up MIDI communication with your Fizmo. **For Fauxmo to work properly, you must enable the application to both send and receive MIDI from the Fizmo.** So be sure to select the MIDI device that corresponds to your Fizmo in **both** the Fizmo MIDI Input and Fizmo MIDI Output drop down menus in the MIDI Setup section. **Also be sure to specify the MIDI Base Channel that your Fizmo is set to.**

Additionally, you can specify a different MIDI device to send note and/or MIDI clock information to the Fizmo, to play notes or adjust arpeggiator tempo as you edit a sound's parameters. The note input would be useful for example if you have a Fizmo rack (that obviously has no keyboard of its own!), or if your studio uses a master keyboard controller that is easier to access than the Fizmo's keyboard. You do not need to set a MIDI device for these latter two settings (note and clock inputs), it's fine to leave them as “---” if you have no need for them. Be sure to **not** set the MIDI Note Input to Fizmo and MIDI Clock Input to Fizmo settings to the entry corresponding to your Fizmo – **this will create a MIDI feedback loop and things won't work correctly!** Your selected MIDI settings are saved between application sessions.

Once you have set up your MIDI settings, click the Detect Fizmo and Get System Parameters button. If communication with the Fizmo is successful, you'll see a brief message saying so, the grey overlay over the System Parameters will disappear, and the Fizmo's current system parameters will be fetched and displayed on screen.



**There's one critical step remaining** – please ensure that **NRPN Transmit Enable is ON**. Fauxmo won't work correctly if set to OFF. If it was OFF when Fauxmo retrieved the Fizmo's settings, you should probably consider storing the change to ON in the Fizmo's flash memory, so you don't need to repeat this step each time. See the Usage/System section for more details.

**You're now ready to go! Click the Presets tab to begin.**

On subsequent application start ups, this initial step – detect Fizmo, and if connected automatically fetch system parameters – happens automatically. If for whatever reason it does NOT detect the Fizmo upon startup, you will be automatically brought to the System/Setup screen, will see the grey overlay over the system parameters, and where you can re-select the correct MIDI devices from the drop down menus. You will also be shown the Fizmo Not Detected! warning just under the System / Setup tab.

**SYSTEM / SETUP** PRESETS EDIT

FIZMO NOT DETECTED!

**System**

Fizmo SysEx ID: 0

Detect Fizmo and Get System Parameters

System Pitch Bend Down Range: 1DN

System Pitch Bend Up Range: 1UP

System Pitch Bend Mode: Normal

System Fine Tune Offset: 0

MIDI Dump Throttle: 0

Base MIDI Channel: 1

System MIDI Output Mode: Local

NRPN Transmit Enable: Off

Transmit MIDI Clock: Off

Mic to Insert: Off

System Tempo Clock Source: Int

System Tempo (BPM): 25

System CTRL1 Source: Off

System CTRL2 Source: Off

System CTRL3 Source: Off

System CTRL4 Source: Off

Touch Curve: Table-1

Foot Switch Left Mode: Off

Foot Switch Right Mode: Off

Arpeggiator MIDI Output Mode: Local

Arpeggiator Bypass Mode: Off

Arpeggiator Tempo Source: Preset

These Parameters are NOT updated dynamically by changes on the Fizmo! Press the button above to refresh them if necessary

Changes made here won't be saved if Fizmo is turned off, unless stored to Fizmo's flash memory. Do so by pressing Fizmo's MIDI Edit button, then Save button, then +/Yes button

**MIDI Setup**

Fizmo MIDI Input: ---

Fizmo MIDI Output: ---

Fizmo MIDI Base Ch: 1

Rescan MIDI Devices

MIDI note input to Fizmo: ---

MIDI clock input to Fizmo: ---

MIDI transmit speed: Regular

**Default Preset**

Use built-in Default Preset

Use custom Default Preset

Select

**Application Size**

75% 100% 125% 150% 175% 200%

Make Default

**Randomization**

Preferences

**Always On Top**

Close

## Usage

### System / Setup

This tab allows one to view and adjust the Fizmo's global MIDI parameters, as well as to set up the MIDI devices and adjust some Fauxmo options. Most of the details surrounding initial MIDI setup were covered in the prior section, Authorization & Initial Setup.

### System

These settings allow you to configure global aspects of your Fizmo. Here are the explanations of each parameter, copied from page 34 of the Fizmo's User Guide:

<i>Parameter:</i>	<i>Displayed as:</i>	<i>What it does:</i>
Base channel	<i>bChn</i>	selects FIZMO's reception/transmission MIDI channels; see Page 31
SysEx ID	<i>i d</i>	assigns an ID number to FIZMO for use with SysEx data; see Page 33
Touch	<i>tch</i>	allows you to set the response of FIZMO's keyboard; see Page 10
Foot Switch 1	<i>Ft 1</i>	allows you to designate the function of the left- and right-hand pedal, respectively, in an attached SW-10 foot switch; see Page 6
Foot Switch 2	<i>Ft 2</i>	
Pitch Bend	<i>bEnd</i>	sets the maximum amount of upward and downward pitch bend applied by FIZMO's pitch bend wheel; see Page 10
Held Pitch Bend	<i>PhLd</i>	enables or disables held pitch-bend feature; see Page 10
Tune	<i>tunE</i>	raises or lowers FIZMO's tuning by cents; from -50c to (plus) 50c
Keyboard MIDI	<i>br d</i>	sets whether FIZMO's keyboard will play onboard sounds, transmit MIDI or both; see Page 32
System Controller 1	<i>SY5 1</i>	designates a MIDI controller for use as SYS1 or SYS2 modulator in FIZMO's sounds; see "The Four System Controllers" below
System Controller 2	<i>SY5 2</i>	
System Controller 3	<i>SY5 3</i>	designates a MIDI controller to be transmitted when the F knob is turned; see "The Four System Controllers" below
System Controller 4	<i>SY5 4</i>	designates a MIDI controller to be transmitted when the Z knob is turned; see "The Four System Controllers" below
NRPN	<i>nrPn</i>	enables or disables transmission of NRPN data; see "Recording and Playing Back Edits Using NRPNS" on Page 35
Arpeggiator MIDI Out	<i>Arout</i>	sets whether the arpeggiator will transmit MIDI data; see Page 32
Arpeggiator Bypass	<i>bPRS</i>	sets whether FIZMO's keyboard will be directed to the arpeggiator or bypass it; see Page 12
Arpeggiator Tempo Source	<i>ArTPS</i>	sets the behavior of the arpeggiator tempo when a new preset is selected; see Page 12
Dump Delay	<i>dLRY</i>	slows the transmission of SysEx data when transmitting to a slow external MIDI device; 0 is fastest setting, 3 is slowest
Line In	<i>LnI n</i>	determines a connected microphone's audio routing; see Page 5

These settings are NOT updated dynamically by changes made on the Fizmo; if you do make changes there, you should press the Detect Fizmo and Get System Parameters button to re-synchronize the settings.

Also, changes made to these settings will NOT automatically be saved by the Fizmo when it is powered off. To do so, follow the procedure outlined on page 34 of the Fizmo User's Guide, and copied below – basically, press the Fizmo's MIDI Edit button, then the Save button, and then the +/-Yes button.

To make the above settings permanent, they must be burned to FLASH memory. To do this, press the Sound Save button when any of the above parameters are displayed. FIZMO will show *burn?*, asking you to verify that you want to write your current global settings to FLASH. Press the +/Yes button to execute the procedure, or the -/No button to cancel it. The display will show *burn* as FIZMO saves the settings.



Note that some of the settings are not mentioned in the Fizmo manual, but do appear in the SoundDiver settings, and so have been replicated in Fauxmo. It's still unclear to me whether they have any effect on the Fizmo or not.

## MIDI Setup

This section allows for MIDI set up, to allow for bi-directional communication with the Fizmo to edit its parameters, and also to provide for an additional MIDI device to be able to send note and clock information to it. See the Authorization & Initial Setup section for more details.

If you made changes to your MIDI environment after you've started Fauxmo, you can press the Rescan MIDI Devices button to update Fauxmo. You'll need to respecify all the MIDI devices in the drop down menus if so.

The MIDI Transmit Speed setting allows you to specify a slower MIDI transmission speed, to accommodate older MIDI interfaces. In all beta testing, using the Regular setting was fine on a wide variety of MIDI interfaces. However if you find that you're having trouble getting the Fizmo to respond to edits made in Fauxmo, you can try setting a slower transmission speed here.



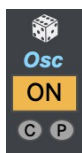
## Randomization and Randomization Preferences

Fauxmo allows for randomization of parameters for a portion of an Oscillator, an entire Oscillator, an entire Sound, or an entire Preset. Note that the on/off status of an Oscillator or Sound is not changed

by randomization. Click the dice icon  next to each of these to randomize it:



Oscillator section randomize



Oscillator randomize



Sound randomize



Preset randomize

**The entire Preset is sent to the Fizmo after each randomization, regardless of how many parameters are being randomized. This will cause the screen to briefly display a grey overlay while the transmission occurs, preventing any further sound manipulation until the Fizmo is ready.**

The Preferences button in the System/Setup section will open a new window that allows you to specify Fauxmo's randomization preferences:

**Waveform** All None Min Max

<input checked="" type="checkbox"/> Wave	1	58
<input type="checkbox"/> Waveform Playback Direction	0	1
<input type="checkbox"/> Waveform Shift Amount	-64	63
<input type="checkbox"/> Waveform Shift Mode	0	4
<input checked="" type="checkbox"/> Waveform Start Index	0	127
<input type="checkbox"/> Waveform Modulation Source	0	24
<input checked="" type="checkbox"/> Waveform Modulation Amount	-127	127

**Pitch** All None

<input checked="" type="checkbox"/> Pitch Env1 Amount	0	127
<input checked="" type="checkbox"/> Pitch LFO Mod Amount	0	127
<input type="checkbox"/> Pitch Key Track	0	33
<input type="checkbox"/> Pitch Mod Source	0	24
<input checked="" type="checkbox"/> Pitch Mod Amount	-127	127
<input checked="" type="checkbox"/> Pitch Mod Range	0	64

**LFO** All None

<input checked="" type="checkbox"/> LFO Shape	0	8
<input checked="" type="checkbox"/> LFO Depth	0	127
<input checked="" type="checkbox"/> LFO Rate	0	99
<input checked="" type="checkbox"/> LFO Delay Time	0	99
<input checked="" type="checkbox"/> LFO Phase	0	127
<input type="checkbox"/> LFO Depth Modulation Source	0	24
<input checked="" type="checkbox"/> LFO Depth Modulation Amount	-127	127
<input type="checkbox"/> LFO Rate Modulation Source	0	24
<input checked="" type="checkbox"/> LFO Rate Modulation Amount	-127	127
<input checked="" type="checkbox"/> LFO Retrigger	0	1
<input checked="" type="checkbox"/> LFO Rate Timebase	0	11

**Env 1** All None

<input type="checkbox"/> Env1 Release Modulation	-127	127
<input type="checkbox"/> Env1 Attack Time	0	99
<input type="checkbox"/> Env1 Attack Level	0	127
<input checked="" type="checkbox"/> Env1 Decay1 Time	0	99
<input checked="" type="checkbox"/> Env1 Decay1 Level	0	127
<input checked="" type="checkbox"/> Env1 Decay2 Time	0	99
<input checked="" type="checkbox"/> Env1 Decay2 Level	0	127
<input checked="" type="checkbox"/> Env1 Decay3 Time	0	99
<input checked="" type="checkbox"/> Env1 Sustain Level	0	127
<input checked="" type="checkbox"/> Env1 Release Time	0	99
<input type="checkbox"/> Env1 Level Velocity	0	99
<input type="checkbox"/> Env1 Attack Velocity	0	99
<input type="checkbox"/> Env1 Key Scale	0	99
<input checked="" type="checkbox"/> Env1 Envelope Mode	0	2
<input type="checkbox"/> Env1 Envelope Velocity Curve	0	8

**Filter** All None Min Max

<input type="checkbox"/> Filter Link	0	1
<input type="checkbox"/> Filter Mode	0	1
<input checked="" type="checkbox"/> Filter 1 Cutoff	0	127
<input checked="" type="checkbox"/> Filter 1 Resonance	0	49
<input checked="" type="checkbox"/> Filter 1 Env Amount	0	127
<input type="checkbox"/> Filter 1 Mod Source	0	24
<input type="checkbox"/> Filter 1 Mod Amount	-127	127
<input type="checkbox"/> Filter 1 Cutoff Keyboard Tracking Amount	0	32
<input type="checkbox"/> Filter 1 Cutoff Keyboard Tracking Breakpoint	0	127
<input checked="" type="checkbox"/> Filter 2 Cutoff	0	127
<input checked="" type="checkbox"/> Filter 2 Env Amount	0	127
<input type="checkbox"/> Filter 2 Mod Source	0	24
<input type="checkbox"/> Filter 2 Mod Amount	-127	127
<input type="checkbox"/> Filter 2 Cutoff Keyboard Tracking Amount	0	32
<input type="checkbox"/> Filter 2 Cutoff Keyboard Tracking Breakpoint	0	127

**Amplitude** All None

<input type="checkbox"/> Amp Mod Source	0	24
<input checked="" type="checkbox"/> Amp Mod Amount	-127	127
<input type="checkbox"/> Pan Mod Source	0	24
<input checked="" type="checkbox"/> Pan Mod Amount	-127	127
<input type="checkbox"/> Rolloff Slope	0	127
<input type="checkbox"/> Rolloff Key Number	0	127
<input type="checkbox"/> Rolloff Mode	0	3
<input checked="" type="checkbox"/> Noise Rate	0	127
<input checked="" type="checkbox"/> Noise Rate Timebase	0	11

**Env 2** All None

<input type="checkbox"/> Env2 Release Modulation	-127	127
<input type="checkbox"/> Env2 Attack Time	0	99
<input type="checkbox"/> Env2 Attack Level	0	127
<input checked="" type="checkbox"/> Env2 Decay1 Time	0	99
<input checked="" type="checkbox"/> Env2 Decay1 Level	0	127
<input checked="" type="checkbox"/> Env2 Decay2 Time	0	99
<input checked="" type="checkbox"/> Env2 Decay2 Level	0	127
<input checked="" type="checkbox"/> Env2 Decay3 Time	0	99
<input checked="" type="checkbox"/> Env2 Sustain Level	0	127
<input checked="" type="checkbox"/> Env2 Release Time	0	99
<input type="checkbox"/> Env2 Level Velocity	0	99
<input type="checkbox"/> Env2 Attack Velocity	0	99
<input type="checkbox"/> Env2 Key Scale	0	99
<input checked="" type="checkbox"/> Env2 Envelope Mode	0	2
<input type="checkbox"/> Env2 Envelope Velocity Curve	0	8

**Env 3** All None

<input type="checkbox"/> Env3 Release Modulation	-127	127
<input type="checkbox"/> Env3 Attack Time	0	99
<input type="checkbox"/> Env3 Attack Level	0	127
<input checked="" type="checkbox"/> Env3 Decay1 Time	0	99
<input checked="" type="checkbox"/> Env3 Decay1 Level	0	127
<input checked="" type="checkbox"/> Env3 Decay2 Time	0	99
<input checked="" type="checkbox"/> Env3 Decay2 Level	0	127
<input checked="" type="checkbox"/> Env3 Decay3 Time	0	99
<input checked="" type="checkbox"/> Env3 Sustain Level	0	127
<input checked="" type="checkbox"/> Env3 Release Time	0	99
<input type="checkbox"/> Env3 Level Velocity	0	99
<input type="checkbox"/> Env3 Attack Velocity	0	99
<input type="checkbox"/> Env3 Key Scale	0	99
<input checked="" type="checkbox"/> Env3 Envelope Mode	0	2
<input type="checkbox"/> Env3 Envelope Velocity Curve	0	8

**Randomization Preferences**

Use Current As Defaults Restore Defaults

All None Restore Built-In Defaults

**Names** All None

☒ Preset Name

☒ Sound Name

**General** All None Min Max

<input type="checkbox"/> Trigger Control	0	123
<input type="checkbox"/> Controller High Threshold	0	127
<input type="checkbox"/> Controller Low Threshold	0	127
<input type="checkbox"/> High Keyboard Key Threshold	0	127
<input type="checkbox"/> Low Keyboard Key Threshold	0	127
<input type="checkbox"/> High Note On Velocity	0	127
<input type="checkbox"/> Low Note On Velocity	0	127
<input type="checkbox"/> Volume	-72	14
<input type="checkbox"/> Pan	-64	63
<input type="checkbox"/> Semitone Tune	-64	63
<input type="checkbox"/> Fine Tune	-50	50
<input type="checkbox"/> Mono Mode	0	1
<input checked="" type="checkbox"/> Glide Mode	0	1
<input checked="" type="checkbox"/> Glide Time	0	100
<input type="checkbox"/> Key Group	0	16
<input type="checkbox"/> Layer Fx Bus	0	4
<input type="checkbox"/> Pitch Bend And Sustain	252	255

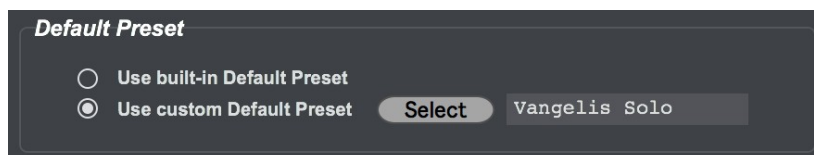
The preferences are arranged by section, which mimic those on the Edit tab. Fauxmo comes with a default set of randomization preferences selected, but you can easily specify your own that can be used each time you run the application. Simply select which parameters you want randomized, adjust the ranges within which to randomize between (min and max), and then press the Use Current As Defaults button. You can always return to these settings by clicking the Restore Defaults button. You can also easily return to the built in defaults by clicking the Restore Built-In Defaults button. The min and max ranges for each parameter are constrained to those values allowed by the Fizmo.

Buttons are also provided to allow for quick selection of *all* or *none* of the parameters in each section, as well as for all of the randomization parameters at once.

## Default Preset

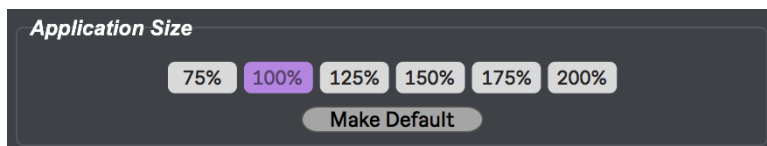
Fauxmo allows you to initialize a Preset with a Default patch. It comes with a Built-In Default Preset, which is limited to using just one sawtooth wave Oscillator within one Sound, and with no envelopes, filtering, modulation, reverb, or effects. It makes for a great “starting point” if you want to build up a sound from scratch.

If you prefer to use your own custom Default patch, click the Use Custom radio button, this will allow you to Select a SysEx file from your hard drive for the Preset you'd like to use. **Only SysEx files are permitted, SoundDiver files are not supported.** Once you've selected a file, the Preset Name will be displayed to the right of the Select button:



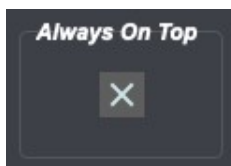
## Application Size

Fauxmo allows you to scale the application window smaller or larger depending on your screen resolution and personal preference. If you select a size that it is too large for your current display, you will be shown an alert instead. You can set your preference as the default by pressing the Make Default button – each time Fauxmo is started subsequently, it will open at that size:



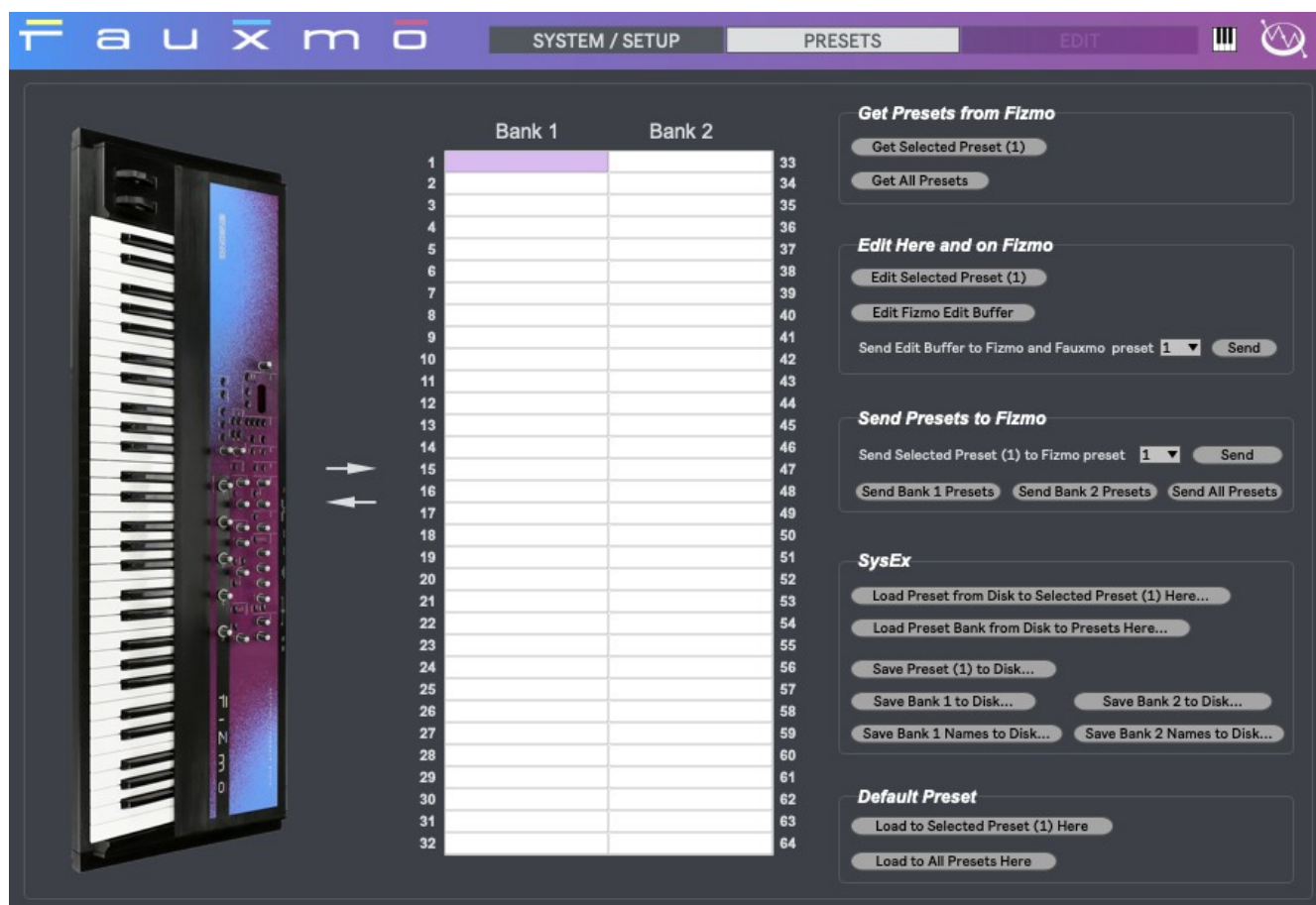
## Always On Top

Fauxmo allows you to set a preference to always be the topmost application on your screen. Simply check the box, and each time you start the application, Fauxmo will always be the topmost window:



## Presets

The Presets tab allows you to manage the Presets that are stored within Fauxmo, to retrieve and send them from/to the Fizmo, and to retrieve and store Fizmo preset and bank files from/to your computer hard disk. Initially, the 64 Preset slots will be empty when you launch Fauxmo for the first time. It's important to understand that the grid of Presets displayed represents the Presets in **Fauxmo** – there is no guarantee that those are necessarily the same as those currently within your **Fizmo**, unless you've sync'd them up first, and are sure to only manage them via Fauxmo.



### Get Presets from Fizmo

To synchronize the Presets in Fauxmo with those that are in your Fizmo, click the Get All Presets button in this section. If you prefer to fetch one Preset at a time, use the Get Selected Preset (XX) button; clicking the desired Preset number in the grid will update the button with the corresponding Preset number.

As the Preset(s) is/are being fetched from the Fizmo, note that the arrow pointing from the Fizmo image to the Preset grid in Fauxmo will flash. This is generally true for all data transmission functions in the Preset tab; the corresponding arrow will flash, so you will know in which direction data is currently flowing.

## **Edit Here and on Fizmo**

To edit a Preset within both Fauxmo and on the Fizmo, within its edit buffer, select your desired Preset from the grid, and click the Edit Selected Preset (XX) button, where XX will reflect the number of the selected Preset. You can also double click a cell in the grid to perform this function. Once the Preset is transmitted to the Fizmo's edit buffer, the Edit tab will become enabled, and you will be automatically moved to the Edit screen.

You can also choose to load the current Fizmo edit buffer into Fauxmo's editor for editing – clicking the Edit Fizmo Edit Buffer will do so.

Finally, you can send the current Fauxmo edit buffer (the Preset being edited on the Edit tab) to a Preset location on both the Fizmo and Fauxmo. Select the desired Preset number in the drop down menu next to Send Edit Buffer to Fizmo and Fauxmo preset, and then click Send to do so.

## **Send Presets to Fizmo**

To send a Preset stored in Fauxmo's Preset grid to a Preset on the Fizmo, click the desired Fauxmo Preset in the grid, choose the desired destination location on the Fizmo from the dropdown menu (if different than the Fauxmo selected location, which will be automatically chosen), and click Send.

To send all of Fauxmo's Presets to the Fizmo, click the Send All Presets button in this section.

## **SysEx**

You can load an individual SysEx file to a Preset location in Fauxmo. Simply select the desired Preset slot in the grid, and then click the Load Preset from Disk to Selected Preset (XX) Here button, where XX will equal the number of the selected Preset.

Pressing the Load Preset Bank from Disk to Presets Here will load a full SysEx bank of 32 patches to either the Bank 1 or Bank 2 locations, depending on which Bank the file was originally stored from.

Similarly, you can save an individual Preset to a SysEx file on disk by selecting it in the grid, then pressing the Save Preset (XX) to Disk, where XX represents the number of the selected Preset.

Saving a full Bank to a SysEx file on disk by pressing either the Save Bank 1 to Disk or Save Bank 2 to Disk buttons.

You can save a text file containing the Preset names for each Bank by pressing either the Save Bank 1 Preset Names to Disk or Save Bank 2 Preset Names to Disk buttons.

## **Default Preset**

The Default Preset used in this section is either the Built-In one, or a Custom one of your choosing, as specified in the System / Setup section.

You can load the Default Preset to any selected location in the Fauxmo Preset by grid, by selecting the Preset location first, then pressing the Load to Selected Preset (XX) Here button, where XX represents the number of the selected Preset.

Pressing the Load to All Presets Here button will load the Default Preset to all Preset slots in Fauxmo.

Note that loading the Default Presets in this section only loads them locally, to the Fauxmo Preset slots. If desired to initialize the Fizmo Presets as well, you must do so in the Send Presets to Fizmo section.



## Edit

Once you select a Preset to edit on the Presets tab, the Edit tab activates, and you will be able to switch to it to view and adjust your Preset. Note that the Preset displayed represents the contents of both the Fauxmo edit buffer, **and** the Fizmo's – they will be kept in sync. Once you finish your sound editing, it's important to remember that the edit buffer will not be saved, either in Fauxmo or on your Fizmo – you must save it to a Preset slot if you'd like to keep it. Do so on the Presets tab, in the Edit Here and on Fizmo section, by using the Send Edit Buffer to Fizmo and Fauxmo Preset XX button.

When editing parameters, know that some parameters will allow you to reset them to default values by double-clicking them. Not all parameters have default values however.

Also if editing a parameter that has a large range, Command (Mac) or Ctrl (Win)-dragging the parameter will allow for finer grained control of the value.

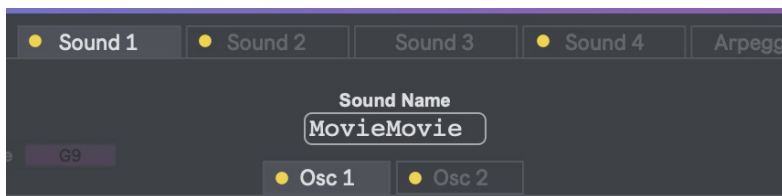
## Preset Name

The top left of the Edit tab will display the name of the Preset. To edit it, simply click in the box and make your desired changes. The contents of the box will turn **orange** at this point. To confirm the new name, you must click the Return/Enter key on your computer keyboard. The letters will revert to their usual white at that point.

## Sound 1 / Sound 2 / Sound 3 / Sound 4

The first 4 tabs in the Edit section contain the settings for the four Sounds contained within a Fizmo Preset. Each Sound has two Oscillators.

When a Sound or Oscillator is enabled within a Fizmo Preset, you will see an orange indicator in it's respective tab indicating so. No indicator means that that Sound or Oscillator is turned off:



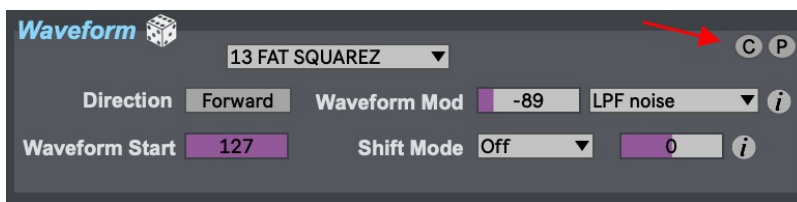
You are free to edit any parameter you see on any of these tabs, and the change will be communicated in real-time to your Fizmo's edit buffer, with changes to the sound occurring either immediately or at the next note-on, depending on the parameter.

Clicking each Sound tab to select it in Fauxmo will select the corresponding Sound on the Fizmo's front panel. Note that selecting an Oscillator in Fauxmo will **NOT** necessarily select the corresponding Oscillator on the Fizmo, however.

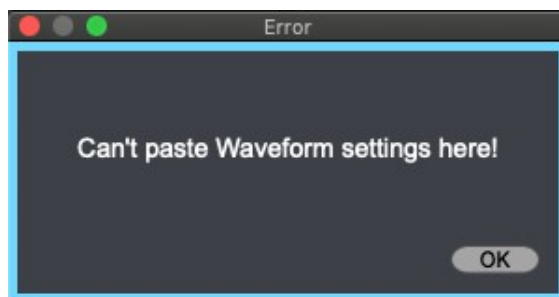
Similarly, you can edit parameters on the Fizmo's front panel, and you will see the change conveyed immediately in Fauxmo's user interface for the corresponding Sound and Oscillator. **There is one case in which this may not occur however.** The Fizmo sends MIDI NRPN information using “running status” - practically what this means is that if you make repeated adjustments to a particular parameter on the Fizmo's front panel, only a partial MIDI message is transmitted after the first change - this is done to be more efficient. However if Fauxmo was started up after the Fizmo, and that one parameter continues to be adjusted, Fauxmo does not know how to interpret that “partial” MIDI message and which parameter it is referring to, and so will not show the adjustment being made on screen. Things will get back to normal as soon as you adjust **another** parameter on the Fizmo, causing it to send a full MIDI message once, prior to resuming the sending of running status MIDI messages.

## Copy / Paste

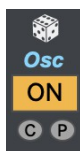
Fauxmo allows you to easily copy and paste portions of a Preset to other parts of that Preset, or even to entirely different Presets. In each of the individual sections within an Oscillator (Waveform, Pitch, Filter, Amplitude, LFO, Env 1, Env 2, Env 3 and General), you will see round graphical C and P buttons allowing you to copy from or paste into that section, respectively:



If you attempt to paste into a different type of section than the one you copied from, you will receive an error message:



You can also copy and paste an entire Oscillator, or even an entire Sound. The copy/paste button location for each of these operations is shown below:



Oscillator copy/paste buttons



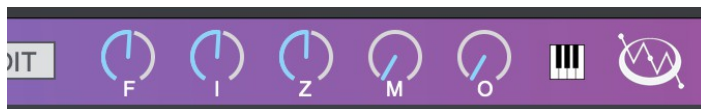
Sound copy/paste buttons

You are also not limited to pasting to other parts of a single Preset – you can paste *between* Presets as well. **Pasting sends the entire Preset to the Fizmo, and so will cause the screen to briefly display a**

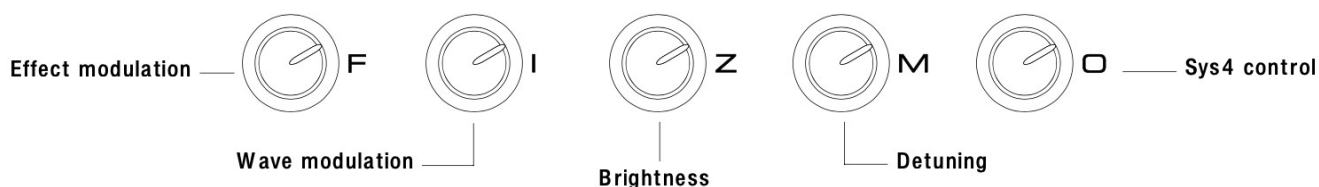
**grey overlay while the transmission occurs, preventing any further sound manipulation until the Fizmo is ready.**

## F I Z M O Knobs

The F I Z M O knobs on the front panel of the Fizmo are reflected at the very top of the Fauxmo interface, and will reflect the stored values within a Preset after it is loaded.



They too will remain in sync with the Fizmo, whether parameters are adjusted there or within Fauxmo. These parameters apply to all Sounds and Oscillators within a Preset. They correspond to the following functions, from the Fizmo manual:



## Arpeggiator

As with the Sound tabs, you will see an orange indicator on the Arpeggiator tab when a Preset has the Arpeggiator turned on. No indicator means that that Arpeggiator is off.

Unlike on the Sound tabs, changes made to the Arpeggiator's settings on the Fizmo are **not** reflected in real time within Fauxmo. It is therefore best to make all Arpeggiator changes from within Fauxmo, so the two edit buffers stay in sync. Also note that some parameters depend on certain MIDI system settings to be set in specific ways – reminders are included on the Arpeggiator tab page.

## Insert Effect

The Insert tab allows you to adjust all parameters of the selected Insert Effect. If choosing one of the Fizmo's built-in effect Variations, the detailed Insert parameters will be hidden. Only when selecting the “Preset” choice from the dropdown menu, will you see and be able to edit all of the Insert Effect's detailed parameters.

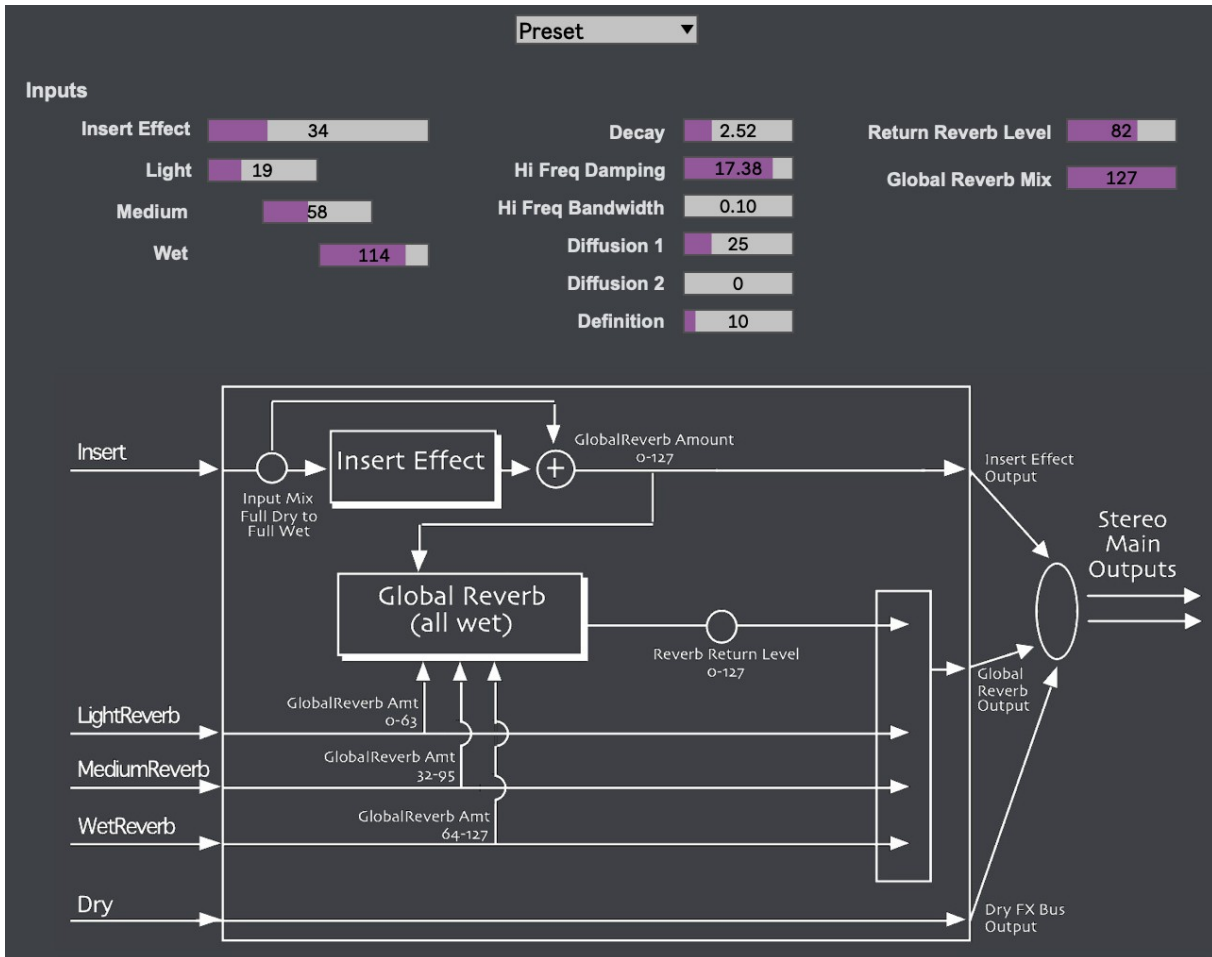
Note that when making certain change to the Insert Effect (changing the Effect algorithm, or changing the Modulation Destination selection), **the entire Preset must be sent to the Fizmo, and so will cause the screen to briefly display a grey overlay while the transmission occurs, preventing any further sound manipulation until the Fizmo is ready.**

## Global Reverb


The Global Reverb tab allows you to adjust all parameters of the Fizmo's Global Reverb. If choosing one of the Fizmo's built-in reverb Variations, the detailed Reverb parameters will be hidden. Only

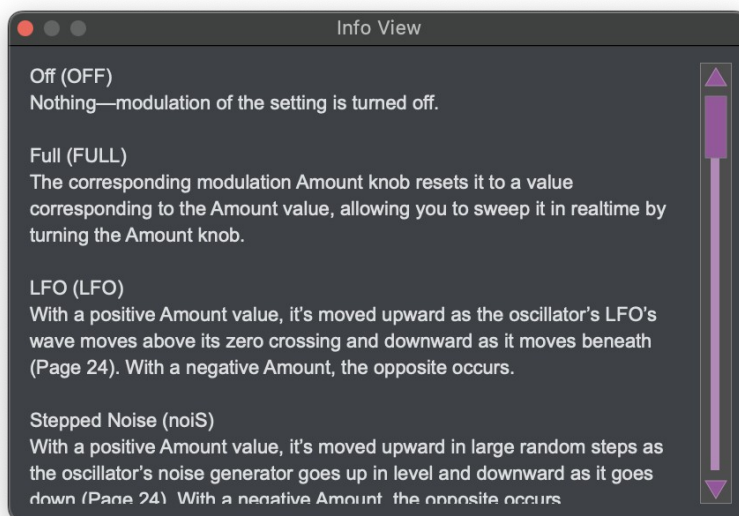
when selecting the “Preset” choice from the dropdown menu, will you see and be able to edit all of the Reverb's detailed parameters.

A graphic illustration of the signal flow through the Insert Effect and/or the Global Reverb has been included in this section, as a reminder of what the various input and output parameters do. The illustration was adapted from one included in the Ensoniq MR-series synths:



## Info View

Several elements within Fauxmo display an “i” indicator, , letting you know that more information about that parameter or function is available within the Info View window. To show it, simply click the icon. If the window is already open, simply hovering over a parameter will update the window to display the appropriate contents.

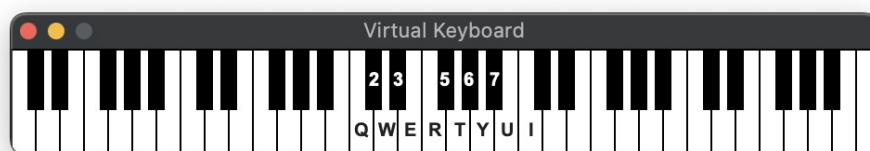


## Virtual Keyboard

Fauxmo has a built-in virtual keyboard, that allows you to send notes to the Fizmo to audition edits made in real-time. To use it, click the keyboard icon just to the right of the Edit tab:



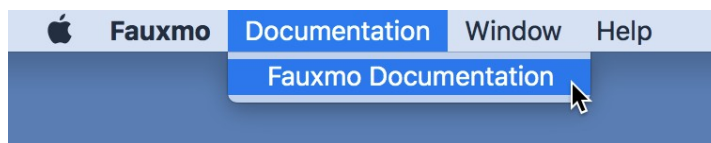
Clicking it will turn the icon **orange**, and you will see an on-screen keyboard appear. Clicking the icon again will hide the keyboard.



You can use your mouse to play notes, or QWERTY keys on your computer keyboard, as indicated by the legend over the keys displayed. You can shift the octave played by the QWERTY keys by using the left and right arrow keys on your computer keyboard.

## Documentation & Help

Fauxmo can launch its full documentation (this document) from within the application itself; just go to the Documentation menu, and choose “Fauxmo Documentation”. This will launch a PDF viewing application in which to view the documentation:



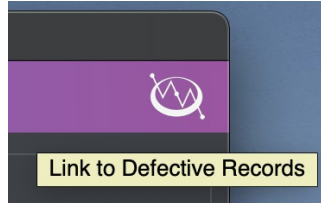
On Windows, you can also find a shortcut to the documentation in the Fauxmo Start menu shortcuts.

## About & Authorization screen

The About Fauxmo menu item (in the Fauxmo menu on Macintosh, and in the Help menu on Windows) will replace the Fauxmo main screen with the About & Authorization screen. In addition to the Authorization information described earlier, it shows version and copyright information about the application, and has direct links to the Fauxmo home and support pages. You can also get the About & Authorization screen by clicking the Fauxmo letters on the top left of the purple banner at the top of the application.



You can also link to the Defective Records home page by clicking its logo on the right side of the application's purple banner at the top.



## Acknowledgments & Thanks

Fauxmo was only made possible because of the invaluable help I got from many people along the way, to whom I'm extremely grateful!

- \* Dan Gordon (aka Adjustable Squelch / RunThisRiverDry) for his reverse engineering and master parameter spreadsheet early work, and for documenting it online
- \* Ingo Debus (creator of the Fizmo SoundDiver editor), for tips based on that experience
- \* Scott Peer and Craig Snoke (both from the original Ensoniq Fizmo team) for details surrounding the Fizmo's creation, and its inner workings
- \* Beta Testers: Ingo Debus, Scott Peer, Craig Snoke, Kent Snow, Tom Moravansky, Alan Platten
- \* Mark Sottilaro credit for Fauxmo name
- \* Peggy Recinos for her help with creation of the Fauxmo name graphics, meant to emulate the Fizmo's
- \* Dave Cornutt for his reverse engineering efforts, and for documenting his experience

Fauxmo was created using Cycling '74's Max (<https://cycling74.com/>) software. In addition, it uses, with permission, some 3<sup>rd</sup> party external objects – I'm indebted to their creators for them:

- min.environment, by Tim Place
- stricmp, getpaths, creatfolder, by Jasch
  - <https://www.jasch.ch/dl>
  - Jasch's externals are LGPL licensed, <http://www.gnu.org/licenses/lgpl.html>
- bit, Lbyte, by Peter Elsea
  - <http://artsites.ucsc.edu/EMS/music/research/lobjects.readme.html>
  - Lobjects are Copyright Peter Elsea and The Regents of the University of California. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
    - Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
    - Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
    - Neither the name of the University of California nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.
  - THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Thanks to everyone at Cycling '74 and on the Cycling '74 forums for their invaluable help with Max questions.



## Contact & Support

Support Forum

<https://defectiverecords.com/forum/categories/fauxmo>

Dan Nigrin

[dan@defectiverecords.com](mailto:dan@defectiverecords.com)

## Copyright

Fauxmo is Copyright © 2019-2021 by Daniel Nigrin and Defective Records Software. All rights are reserved.

## Version History

Version 1.2.1 (April 23, 2022)

- Fixed Pitch Env Amount parameter to range from -127 to 127, instead of 0-127
- Built with Max version 8.3.0 (4a640222f62)

Version 1.2 (January 5, 2022)

- Added ability to randomize parameters within an Oscillator, the entire Oscillator, entire Sounds or even entire Preset. Includes ability to specify which parameters in each section to randomize, as well as ranges within which to randomize those parameters
- Added FIZMO knob real-time bi-directional control – includes now correctly storing state of the FIZMO knobs within each Preset, something that was not working previously
- Added new Info View window that provides more detailed info about specific parameters and functions
- Functions which require sending entire Preset from Fauxmo to Fizmo (e.g. copy/pasting, changing effect algorithm, changing effect modulation destination, or randomizing) now blocks Fauxmo operation until Preset has successfully been received by Fizmo. This prevents too rapid SysEx transfers from being sent to Fizmo, which can cause it to crash
- Added graphic illustration of signal path flow through effects on the Global Reverb tab
- Fixed last entry of Pitch Keytrack dropdown menu; now correctly reflects value currently selected in Sound's Pitch Table. Thanks to Keith Hess for pointing out the error!
- Level Velocity for Env 3 was not being copy/pasted correctly. Now fixed
- Rearranged some parameter placements, to be more logically grouped by function
- Incorrect version number was displayed in Mac Get Info window. Now fixed
- Built with Max version 8.2.2 (1d2bb48dd86)

Version 1.1 (March 31, 2020)

- Added copy/paste ability, for specific Preset sections, entire Oscillator, or entire Sound - even between Patches

Fauxmo – an Ensoniq Fizmo editor / librarian

- Output text file of patch names, on a per Bank basis
- Allows for sending one Bank at a time from Fauxmo to Fizmo, rather than just all patches or one at a time
- Trigger Mode (General section) was not working properly. Now fixed
- Osc Delay (General section) was not properly being saved in patch. Now fixed
- Added preference for "Always On Top" for app window
- Updated Defective Records logo
- Built with Max version 8.1.3 (da28f19)

Version 1.02 (January 1, 2020)

- Added new dropdown menu to select Fizmo's MIDI Base Channel – previous versions didn't allow the built-in Virtual Keyboard to work correctly to send notes to the Fizmo if it was set to MIDI channels other than 1
- Built with Max version 8.1.1 (5a2a445)

Version 1.01 (November 10, 2019)

- Added new MIDI selector to choose MIDI clock input to Fizmo – previous version had no ability to route MIDI clock to the Fizmo
- Multiple minor labeling corrections/tweaks
  - On System/Setup tab, "Arpeggiator Tempo Mode" changed to "Arpeggiator Tempo Source" to match Arpeggiator screen and Fizmo manual
  - On Arpeggiator tab, "RtPO" changed to "AtPO"
  - "Username" and "Password" changed to "Registration Name" and "Registration Code" to be consistent with terms used elsewhere
- Built with Max version 8.1.1 (5a2a445)

Version 1.0 (September 24, 2019)

- First officially released version
- Built with Max version 8.1.0 (8e79f27)

Version 1.0 Beta versions 1-13 (September 12, 2018 – September 20, 2019)

- Versions for external beta tester testing.

Version 1.0 Alphas (December 2017 – September 2018)

- First versions for internal testing.