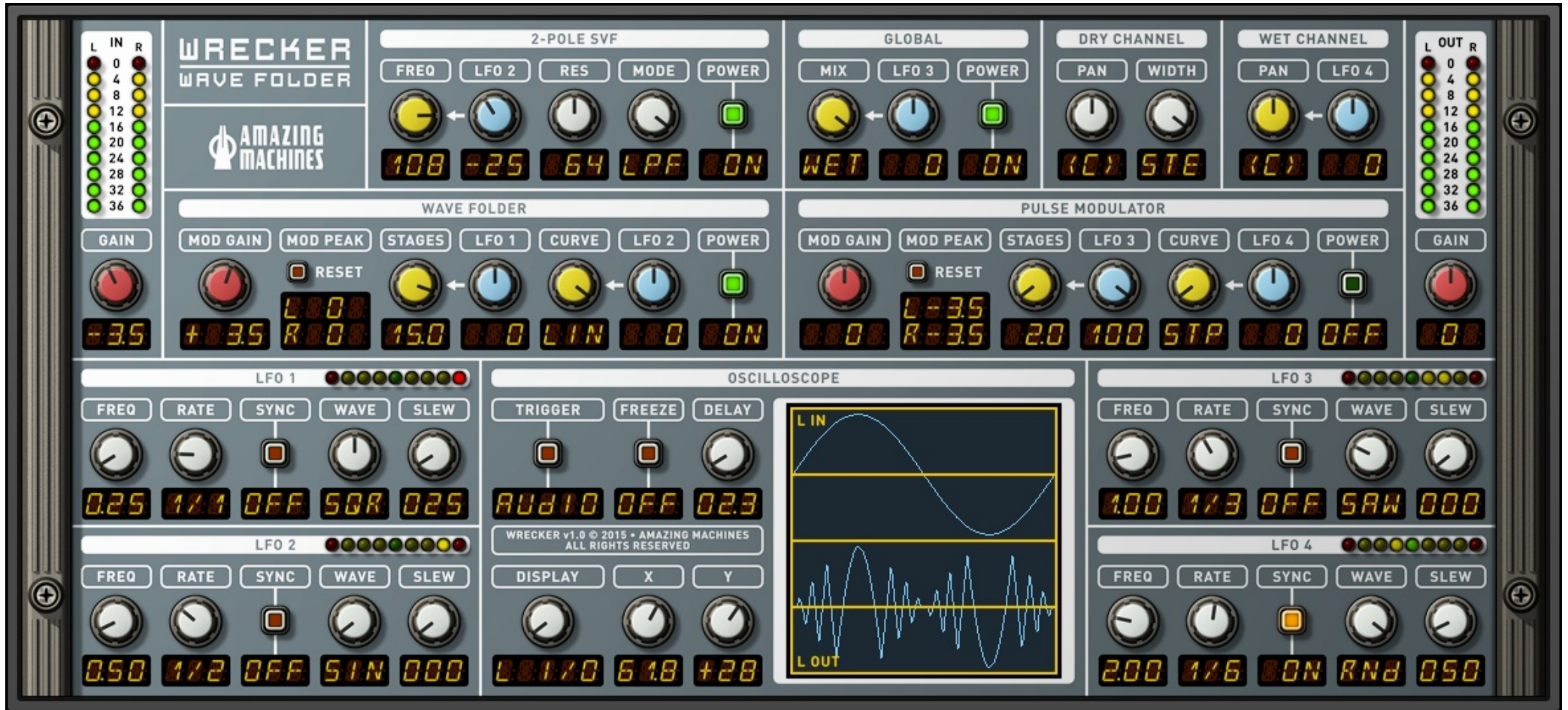


WRECKER - Wave Folder

User Manual • Version 1.0 • August 2015



INTRODUCTION

Thank you, and congratulations on your choice of the WRECKER - Wave Folder.

The WRECKER is a Multi-function Effects Processor Ensemble for use with Native Instruments' Reaktor.

With focus on Wave Folding Effects the WRECKER also includes a Pulse Modulator, a State Variable Filter, a Pan Modulator and an Oscilloscope.

You must accept the license agreement to use this product.

Please see www.amazingmachines.com.br/software_eula.html for details.

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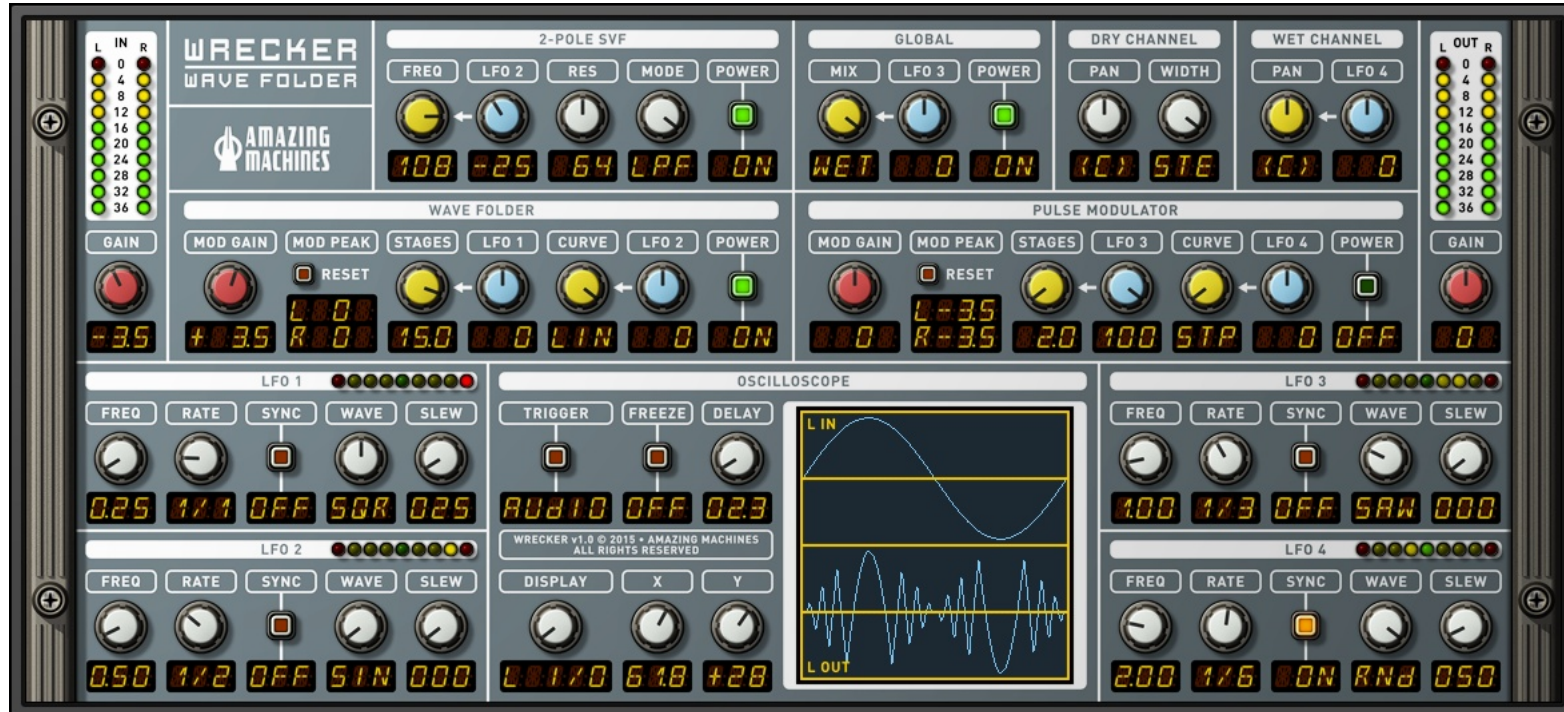


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CHAPTER 1 - SYSTEM REQUIREMENTS

Windows

Windows 7 (Latest Service Pack, 32/64 Bit) or Newer
Intel Core Duo or AMD Athlon 64 X2, 2 GB RAM (4 GB recommended)

Mac

Mac OS X 10.7 (Latest Update) or Newer
Intel Core 2 Duo, 2 GB RAM (4 GB recommended)

General System Requirements

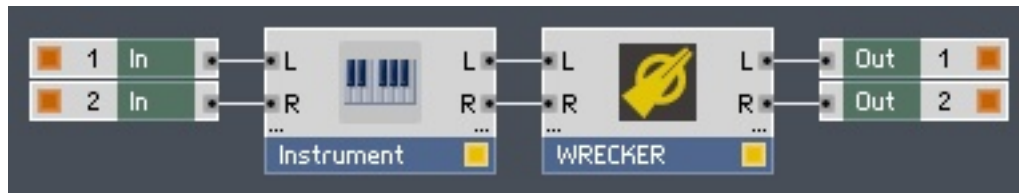
Native Instruments' Reaktor 5.8 or Newer.

CHAPTER 2 - INSTALLATION GUIDE

To install and use the WRECKER Ensemble, simply extract the contents of the provided “.ZIP” archive to your preferred location on your Computer, using an extraction tool such as WinZip.

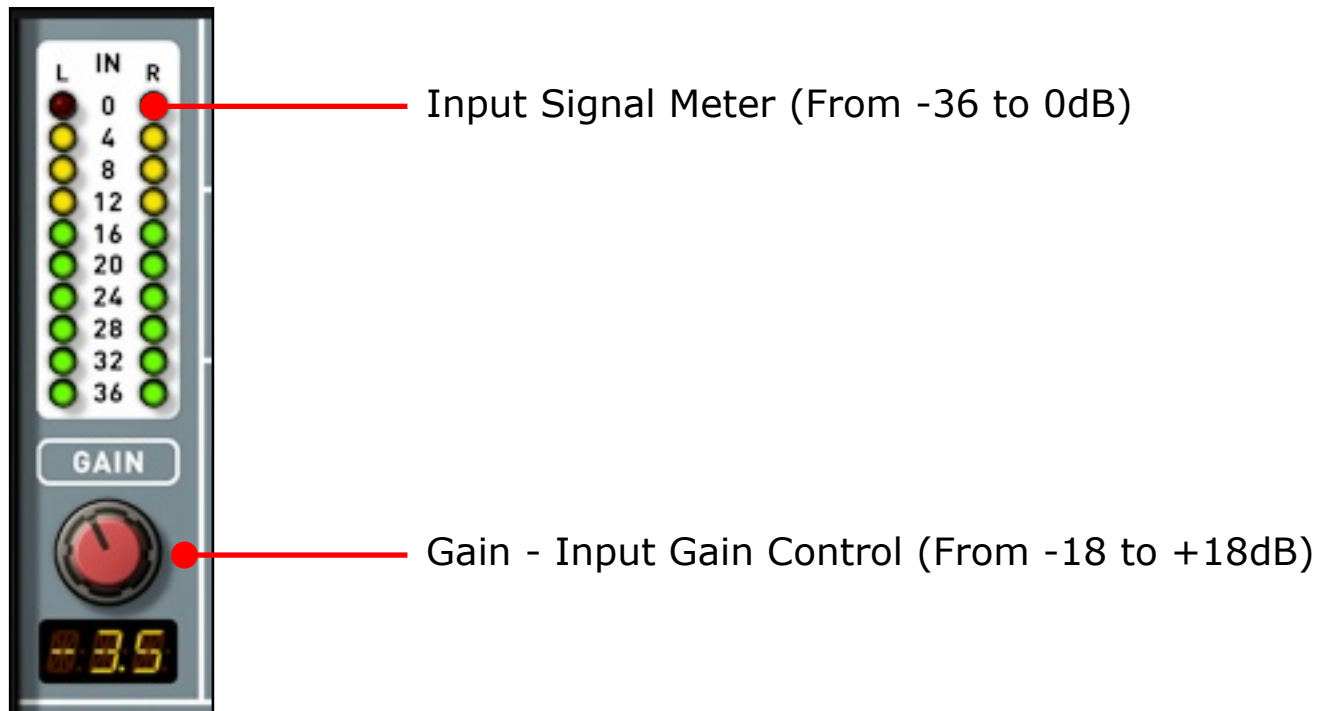
Using the Reaktor Browser, open the “WRECKER v1.0.ens” file to start using the product.

To connect the WRECKER to an existing Ensemble, copy the WRECKER Instrument Structure and paste it inside your Ensemble, then connect both instruments as pictured below:



Input Module

Controls the Audio Input Level.



2-Pole SVF Module

The 2-Pole SVF is a 12dB/Octave State Variable Filter Module that is patched post the Wave Folder and post the Pulse Modulator Modules.



Power Switch - Activates the 2-Pole SVF Module

Mode - Crossfades between the 3 available Filter Modes (From -100 [HPF] to 0 [BPF] to +100 [LPF])

Res - Controls the Filter Resonance (From 0 to 127)

LFO 2 - Controls the amount of LFO 2 Modulation that is applied to the Filter Frequency (From -100 to 0 to +100)

Freq - Controls the Filter Center Frequency (From 0 to 127)

Global Module

Overall Ensemble Controls.



Global Power Switch - when switched OFF it bypasses the whole Ensemble, except for the Input Gain adjustment

LFO 3 - Controls the amount of LFO 3 Modulation that is applied to the Mix (From -100 to 0 to +100)

Mix - Crossfades between the DRY and WET Channels (From -100 [DRY] to 0 [X] to +100 [WET])

DRY Channel Module

Controls the DRY Channel available on the Global Mix.



Width - Controls the Stereo Width of the DRY Channel, this circuit is patched pre Wave Folder, pre Pulse Modulator, pre SVF and pre WET Channel, the DRY Channel Stereo Width does affect all modules in the Audio Chain (From -100 [MONO] to 0 [X] to +100 [STEREO])

Pan - Controls the Pan of the DRY Channel (From -100 [L] to 0 [C] to +100 [R])

WET Channel Module

Controls the WET Channel available on the Global Mix.



LFO 4 - Controls the amount of LFO 4 Modulation that is applied to the Pan (From -100 to 0 to +100)

Pan - Controls the Pan of the WET Channel (From -100 [L] to 0 [C] to +100 [R])

Output Module

Controls the Audio Output Level.



Output Signal Meter (From -36 to 0dB)

Gain - Output Gain Control (From -18 to +18dB)

Wave Folder Module

The Wave Folder Module is a 16 Stages Wave Folding Processor. A Wave Folder is an Audio Rate Modulator that uses the Audio Input Itself as a Modulation Source to scan through a Series of Inversion Stages, the result is a Sliced Waveform in which some areas pass through untouched, while other areas are inverted 180°.

Digital Wave Folders are known for adding lots of Aliasing due to the extremely high rates of Audio Modulation Sources, use the 2-Pole SVF in conjunction with the Wave Folder to minimize the amount of Aliasing.



Power Switch - Activates the Wave Folder Module

LFO 2 - Controls the amount of LFO 2 Modulation that is applied to the Curve (From -100 to 0 to +100)

Curve - Crossfades between a Stepped and a Linear Curve that controls how the Audio Input will be affected by the Wave Folder (From -100 [STP] to 0 [X] to +100 [LIN])

LFO 1 - Controls the amount of LFO 1 Modulation that is applied to the Stages (From -100 to 0 to +100)

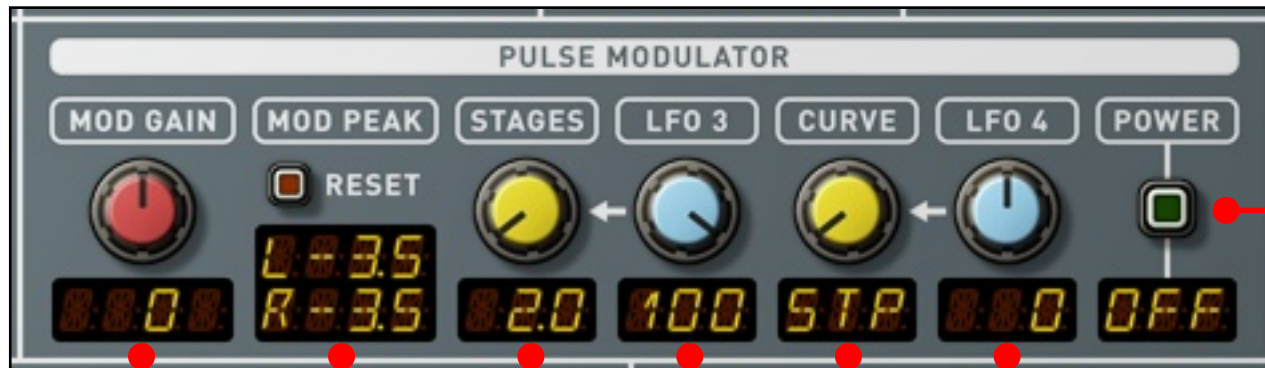
Stages - Controls the number of Modulation Stages (From 2.0 to 16.0)

Mod Peak - Peak Meter for the Modulation Input, in order to reach all Stages the Modulation Input must Peak at 0dB, the Reset Switch Resets the Peak Meter

Mod Gain - Independent Level Control of the Audio Input used to Modulate the Wave Folder, this control doesn't affect the Audio Output Levels, only the Modulation Levels, in order to reach all Stages the Modulation Input must Peak at 0dB

Pulse Modulator Module

The Pulse Modulator Module is a 16 Stages Pulse Modulation Processor. A Pulse Modulator is an Audio Rate Modulator that uses the Audio Input Itself as a Modulation Source to scan through a Series of Amplitude Stages, the result is a Sliced Waveform in which some areas pass through untouched, while other areas have their Amplitude set to 0. Digital Pulse Modulators are known for adding lots of Aliasing due to the extremely high rates of Audio Modulation Sources, use the 2-Pole SVF in conjunction with the Pulse Modulator to minimize the amount of Aliasing.



Power Switch - Activates the Pulse Modulator Module

LFO 4 - Controls the amount of LFO 4 Modulation that is applied to the Curve (From -100 to 0 to +100)

Curve - Crossfades between a Stepped and a Liner Curve that controls how the Audio Input will be affected by the Pulse Modulator (From -100 [STP] to 0 [X] to +100 [LIN])

LFO 3 - Controls the amount of LFO 3 Modulation that is applied to the Stages (From -100 to 0 to +100)

Stages - Controls the number of Modulation Stages (From 2.0 to 16.0)

Mod Peak - Peak Meter for the Modulation Input, in order to reach all Stages the Modulation Input must Peak at 0dB, the Reset Switch Resets the Peak Meter

Mod Gain - Independent Level Control of the Audio Input used to Modulate the Pulse Modulator, this control doesn't affect the Audio Output Levels, in order to reach all Stages the Modulation Input must Peak at 0dB

LFO Modules

The WRECKER features 4 LFOs which are used to modulate specific functions within the Ensemble.



Slew - Built-in Slew Limiter, generates a transition between the amplitude changes of the LFO (From 0 to 999)

Wave - Crossfades between the 5 available Waveforms (From -100 [SINE] to -50 [SAW] to 0 [SQUARE] to +50 [TRIANGLE] to +100 [RANDOM])

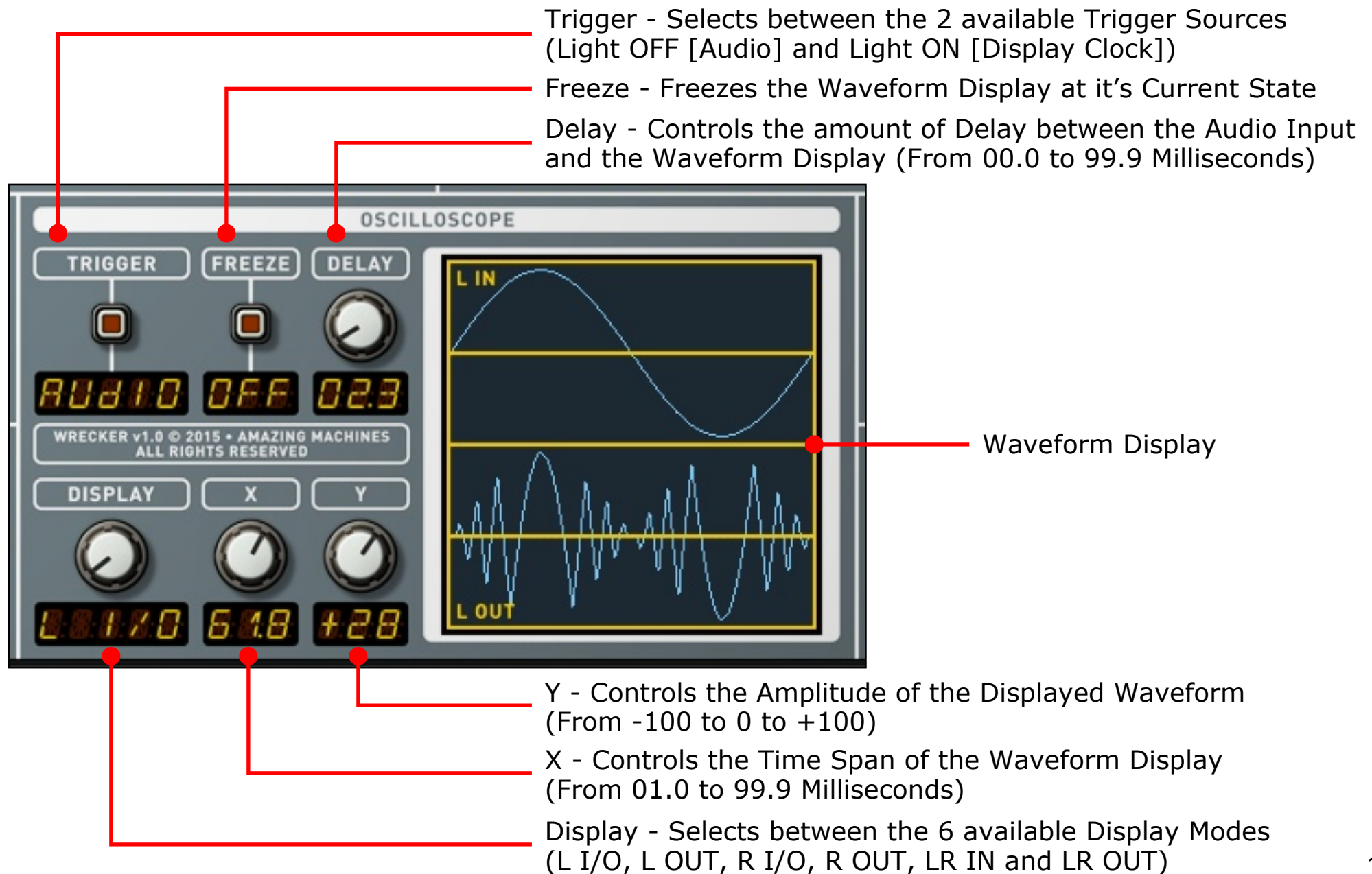
Sync - When Switched ON the LFO will Sync to MIDI Clock

Rate - Controls the MIDI Clock Time Division for the LFO (4/1, 2/1, 1/1, 1/1.5, 1/2, 1/3, 1/4, 1/6, 1/8, 1/12, 1/16, 1/24, 1/32 and 1/48)

Freq - Controls the Speed of the LFO when Sync is switched OFF (From 0.01 to 9.99 Hertz)

Oscilloscope Module

Source for valuable Visual Representation of the Audio Chain. Note that the Oscilloscope controls do not affect the Audio Chain in any ways.

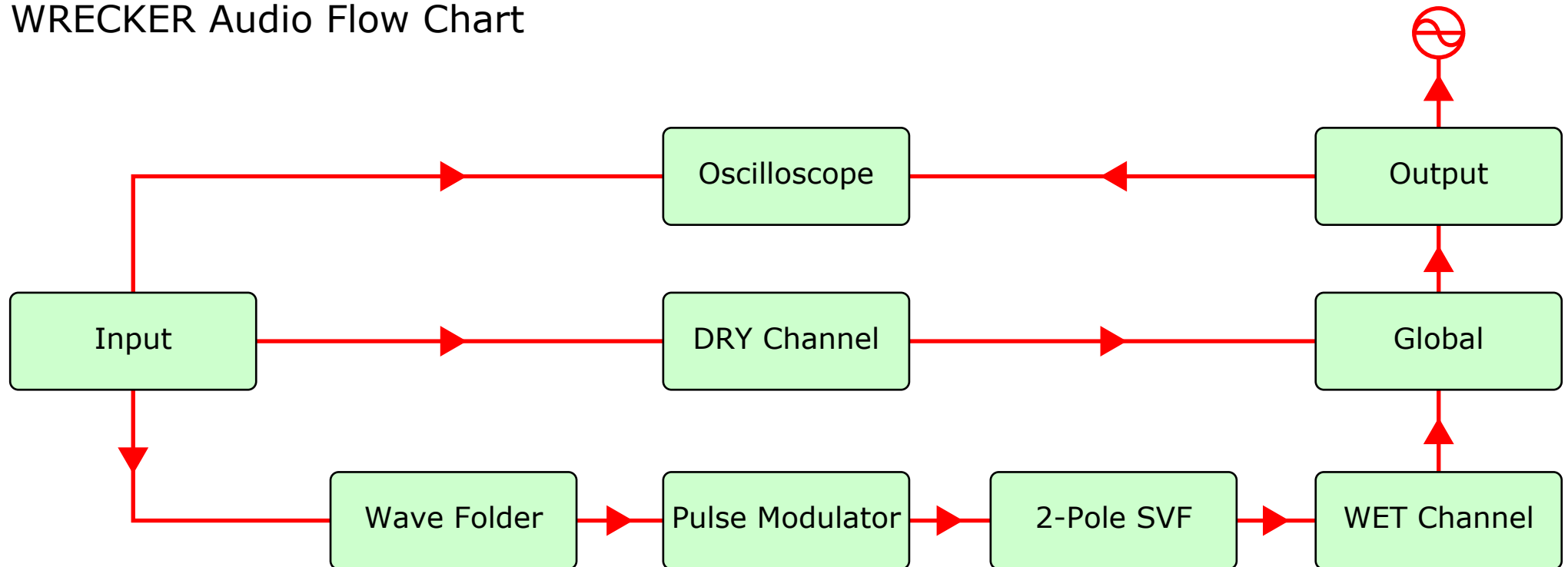


General Controls

To set a Knob or Switch back to its Default Position, control+click the desired Knob or Switch and select "Set to Default" from the drop down menu. Double-clicking a Knob will also set it back to its Default Position.

CHAPTER 4 - AUDIO FLOW CHART

WRECKER Audio Flow Chart



Note that the Stereo Width Control on the DRY Channel Module also affects the Stereo Width of the Audio Input on the Wave Folder Module.

Note that the Input Gain Control at the Input Module affects the Modulation Input on the Wave Folder and Pulse Modulator Modules.

WRECKER MIDI Continuous Controller Implementation

0 (Program Change) - Snapshot Recall	77 (Sound Controller # 8) - Pulse Modulator Power
3 (Undefined) - Input Gain	78 (Sound Controller # 9) - LFO 1 Freq
9 (Undefined) - 2-Pole SVF Freq	79 (Sound Controller # 10) - LFO 1 Rate
14 (Undefined) - 2-Pole SVF LFO 2	85 (Undefined) - LFO 1 Sync
15 (Undefined) - 2-Pole SVF Res	86 (Undefined) - LFO 1 Wave
16 (General Purpose # 1) - 2-Pole SVF Mode	87 (Undefined) - LFO 1 Slew
17 (General Purpose # 2) - 2-Pole SVF Power	88 (Undefined) - LFO 2 Freq
18 (General Purpose # 3) - Global Mix	89 (Undefined) - LFO 2 Rate
19 (General Purpose # 4) - Global LFO 3	90 (Undefined) - LFO 2 Sync
20 (Undefined) - Global Power	102 (Undefined) - LFO 2 Wave
21 (Undefined) - Dry Channel Pan	103 (Undefined) - LFO 2 Slew
22 (Undefined) - Dry Channel Width	104 (Undefined) - Oscilloscope Trigger
23 (Undefined) - Wet Channel Pan	105 (Undefined) - Oscilloscope Freeze
24 (Undefined) - Wet Channel LFO 4	106 (Undefined) - Oscilloscope Delay
25 (Undefined) - Output Gain	107 (Undefined) - Oscilloscope Display
26 (Undefined) - Wave Folder Mod Gain	108 (Undefined) - Oscilloscope X
27 (Undefined) - Wave Folder Mod Peak Reset	109 (Undefined) - Oscilloscope Y
28 (Undefined) - Wave Folder Stages	110 (Undefined) - LFO 3 Freq
29 (Undefined) - Wave Folder LFO 1	111 (Undefined) - LFO 3 Rate
30 (Undefined) - Wave Folder Curve	112 (Undefined) - LFO 3 Sync
31 (Undefined) - Wave Folder LFO 2	113 (Undefined) - LFO 3 Wave
70 (Sound Controller # 1) - Wave Folder Power	114 (Undefined) - LFO 3 Slew
71 (Sound Controller # 2) - Pulse Modulator Mod Gain	115 (Undefined) - LFO 4 Freq
72 (Sound Controller # 3) - Pulse Modulator Mod Peak Reset	116 (Undefined) - LFO 4 Rate
73 (Sound Controller # 4) - Pulse Modulator Stages	117 (Undefined) - LFO 4 Sync
74 (Sound Controller # 5) - Pulse Modulator LFO 3	118 (Undefined) - LFO 4 Wave
75 (Sound Controller # 6) - Pulse Modulator Curve	119 (Undefined) - LFO 4 Slew
76 (Sound Controller # 7) - Pulse Modulator LFO 4	

To set a Knob or Switch to respond to a specific MIDI Continuous Controller, control+click the desired Knob or Switch and select "MIDI & OSC Learn" from the drop down menu, then move the desired MIDI Controller to assign.

