AM101 Colorful Noise

User Manual • Version 1.1 • November 2015

AMAZING MACHINES

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INTRODUCTION

Thank you, and congratulations on your choice of the AM101 Colorful Noise module.

AM101 is a Block module for use with Native Instruments' Reaktor Blocks Modular System.

A Noise Generator like no other, AM101 can do much more than a standard Noise Generator, Earth Shaking Noise Sweeps, Modulated Noise, Tuned Noise, Chiptune Style Noise and Random LFO Speed Noise are so easy to achieve with AM101 that you won't believe your ears. AM101 also comes with a Builtin Output VCA, making the setup of complex patches fast and easy.

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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CHAPTER 1 - SYSTEM REQUIREMENTS

Windows

- Windows 7, Windows 8 or Windows 10 (latest Service Pack, 32/64-bit).
- Intel Core 2 Duo or AMD AthlonTM 64 X2, 4 GB RAM.

Mac

- Mac OS X 10.9 or 10.10 (latest update, 64-bit only).
- Intel Core 2 Duo, 4 GB RAM.

General System Requirements

- Native Instruments’ Reaktor 6.0 or Newer.

CHAPTER 2 - INSTALLATION GUIDE

To install and use AM101, simply extract the contents of the provided ".ZIP" archive to your prefered location on your Computer, using an extraction tool such as WinZip. Then, using the Reaktor Browser, load the "AM101 Colorful Noise v1.1.ism" Block to an existing Ensemble.

Alternatively, the provided "AM101 Colorful Noise v1.1.ens" file can be used to copy and paste AM101 between Ensembles.

CHAPTER 3 - CONNECTIONS AND INTERFACE

AM101 is a Complex Noise Generator, at it's core it features a White Noise Generator which is routed through two independent circuits, these two circuits pass through a Crossfader and finally through an Output VCA. The first circuit pass the White Noise through a S&H that is Clocked by the Audio Sample Rate, this circuit is controlled by the S&H switch, the COLOR knob and the CV1 Modulation Input. The second circuit features a Keyboard Tracking Oscillator that serves as the Clock Source for a second S&H, this circuit is controlled by the Pitch Input, the Reset Input, the FINE knob, the COARSE knob, the RANGE switch and the CV2 Modulation Input. Both circuits are then routed through a Crossfader which is controlled by the KBD knob and the KBD CV Modulation Input. Finally the mixed signal arrives at the Output VCA which is controlled by the VCA switch, the LEVEL knob, the MUTE switch and the CV3 Modulation Input.

Connections

Pitch Input of the Keyboard Tracking Oscillator. An increase of 0.1 equals a 1 octave increase in Pitch.

Reset Input of the Keyboard Tracking Oscillator. A positive Zero Crossing at this Input will Reset the Oscillator.

Color Modulation Input.

Pitch Modulation Input.

VCA Modulation Input.

KBD Modulation Input, use a FREE AM103 Expander module to externally attenuate this Input.

Main Output of the Noise Generator, this output is patched Post KBD Crossfader and Post VCA.

Direct Output of the Color circuit, this output is patched Pre KBD Crossfader and Pre VCA.

Direct Output of the Tuned Noise circuit, this output is patched Pre KBD Crossfader and Pre VCA.

Direct Output of the Keyboard Tracking Oscillator.

Direct Output of the White Noise Generator.

Controls

Crossfades between the S&H and the Keyboard Tracking circuits, when set to 0 (DIV) the COLOR knob controls the Frequency Range of the Noise Generator, when set to 100 (TUN) The Pitch Input controls the Frequency Range of the Noise Generator.

Coarse Tune of the Keyboard Tracking Oscillator in Semitones.

Fine Tune of the Keyboard Tracking Oscillator in Cents.

Sets the S&H Clock Rate, choose Slow (SLW) for LFO Range Noise Generation or Fast (FST) for Audio Range Noise Generation. In Fast mode, the S&H is clocked by the Audio Sample Rate, while in Slow mode, the S&H is clocked by the Audio Sample Rate divided by 320. The Division Factor of the S&H Clock is set by the COLOR knob.

Selects between Exponential or Linear VCA Curves.

Sets the Division Factor of the S&H Clock in Integers.

Controls the Output Level of the VCA.

Controls the amount of CV1 Modulation that is applied to the S&H Clock Divider.

Controls the amount of CV3 Modulation that is applied to the VCA Level.

Sets the Range of the CV2 Modulation Input. Choose Narrow (NRW) to adjust the amount of modulation in Cents or Wide (WDE) to adjust the amount of modulation in Semitones.

Mutes the Main Output of the Noise Generator.

Controls the amount of CV2 Modulation that is applied to the Pitch of the Keyboard Tracking Oscillator.

Mouse Areas, Value Display and Modulation Indicators

The areas marked in red are Mouse Areas, they activate the Value Display for the selected Control, everytime a Knob or Switch is changed, the Value Display automatically updates the Status of the Control, but sometimes you may want to check the Status of a Control without changing it's current position, the Mouse Areas serve this purpose.

Unified Value Display, the Controls on the AM101 GUI report their current Status to this Display.

The white dots that circle around the Color, Coarse, Level and KBD knobs are Modulation Indicators, they move away from the knobs indicators depending on how the CV1, CV2, CV3 and KBD CV Inputs are set.

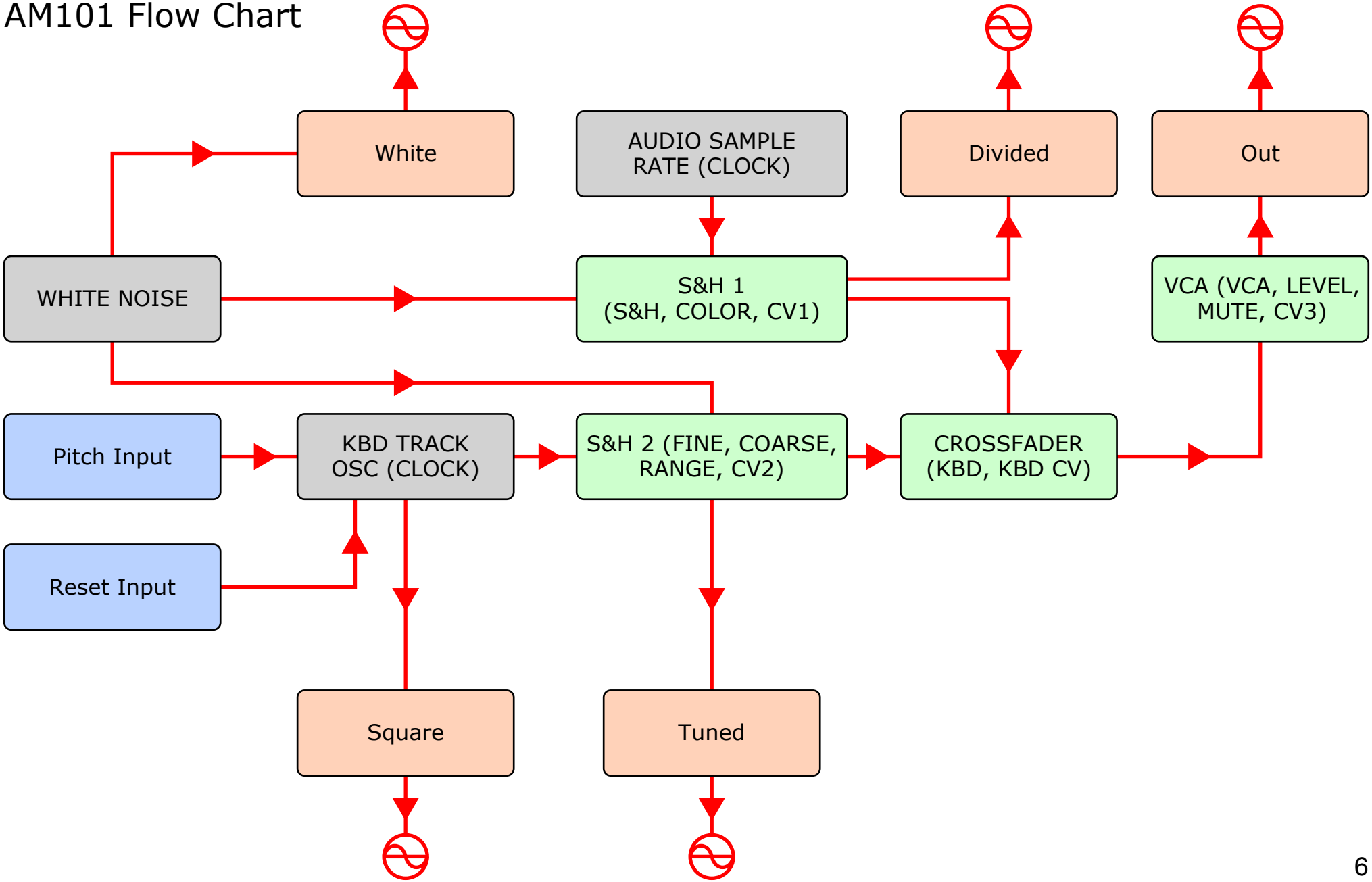
General Controls

To set a Knob or Switch back to it's 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 it's Default Position.

MIDI Learn

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.

AM101 Flow Chart

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