

# INTRODUCTION

## WHAT IS IT?

**Tube** is an oscillator plugin for Korg's multi engine. It couples a super-flexible noise generator with a feed-forward comb filter, a combination that we call "resonator modeling synthesis". By modulating the noise density, the noise generator can create a very wide variety of signals such as bursts, gusts of air or sand, scratching, particles dropping onto a surface – and beyond. When these special signals are used to "excite" the resonator, **Tube** produces incredibly lively, nature-like tones: from woodwinds, plucked and bowed strings, to much more experimental, randomly evolving ones. **Tube** also features its own low-frequency oscillator, an envelope generator, and allows its noise signal to be used dry for even more sound design possibilities.

## SPECIFICATIONS

- Variable-density noise generator with 4 types: white noise, shot noise, velvet noise, semi-periodic noise.
- Feed-forward comb filter with negative or positive feedback, plus additional low-pass damping filter inside the feedback loop.
- Built-in lag filters for ultra-smooth parameter adjustment and modulation.
- Built-in LFO with widely variable frequency (0.1 to 10 Hz).
- Built-in envelope generator with widely variable attack time (1 ms to 10 s).

## COMPATIBILITY

- Korg **prologue**
- Korg **minilogue xd**
- Korg **NTS-1**

## PACKAGE CONTENTS

- **Tube** plugin in **prologue**, **minilogue xd** and **NTS-1** formats
- 16 example patches in **prologue** and **minilogue xd** formats
- User Manual PDF
- Multi Engine Preset Converter utility

# BEFORE YOU START

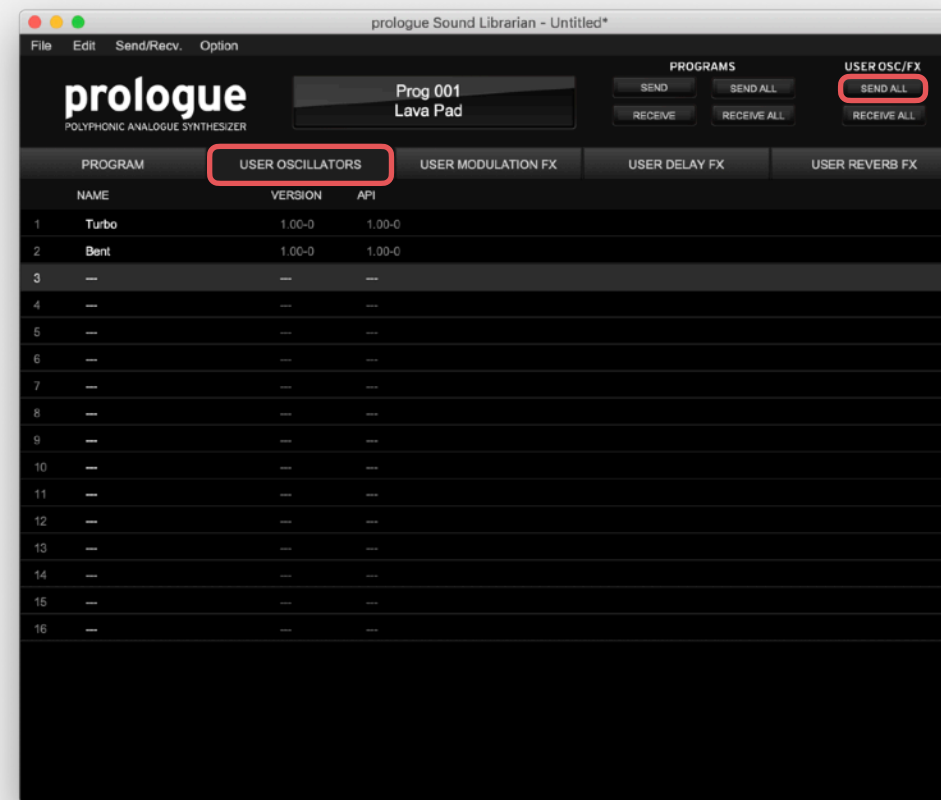


Before you install third-party plugins, please make sure that you have the latest **system update** installed on your KORG synthesizer, and that you also perform the **panel update** and **voice update** procedures if they are required. Older system versions can have major issues with newer plugins. You should keep the **Sound Librarian** application updated as well.

Follow the links below to check and download the latest software for your synthesizer:

- Software for KORG [prologue](#)
- Software for KORG [minilogue xd](#)
- Software for KORG [NTS-1](#)

# INSTALLING THE PLUGIN



## STEP 1

Connect your computer to your synthesizer via MIDI or USB-MIDI and launch the Librarian app.

## STEP 2

While in the USER OSCILLATORS tab, drag and drop the **Tube** plugin file into any available slot.

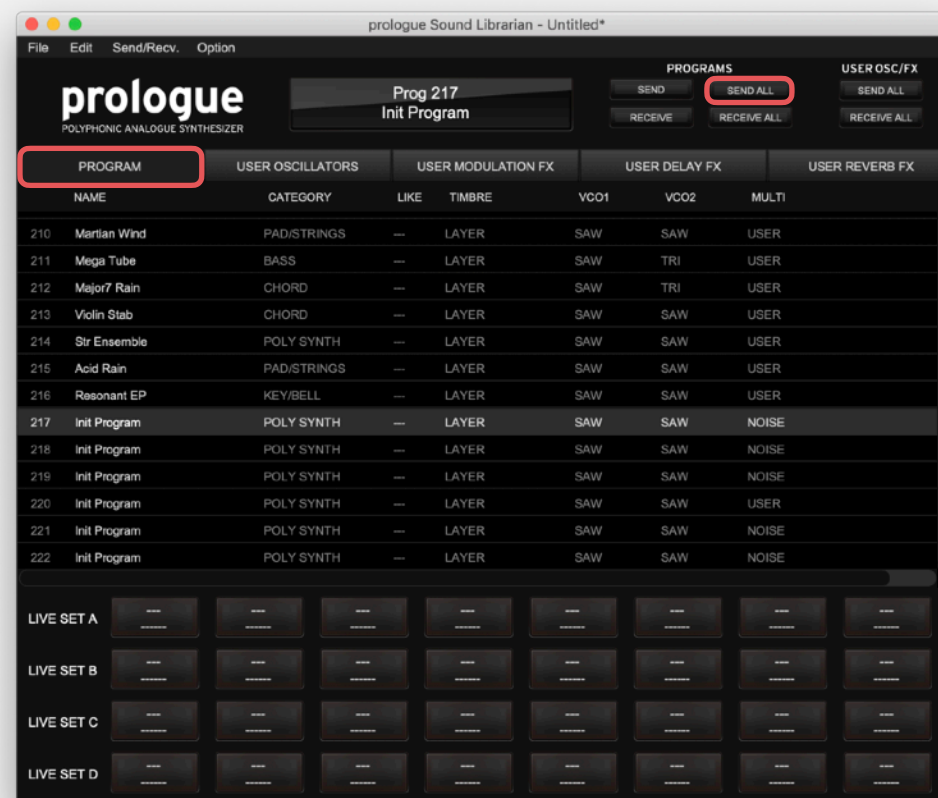
## STEP 3

Press the SEND ALL button in the USER OSC/FX toolbar section.



To get the latest version of **Tube**, visit the **Sinevibes** website and request your downloads:  
[www.sinevibes.com/updates](http://www.sinevibes.com/updates)

# INSTALLING THE PATCHES



## STEP 1

Connect your computer to your synthesizer via MIDI or USB-MIDI and launch the Sound Librarian app. Make sure you are in the PROGRAM tab.

## STEP 2

In the **Tube** package, open the Presets folder, and then open the folder corresponding to the slot number into which you installed the plugin.

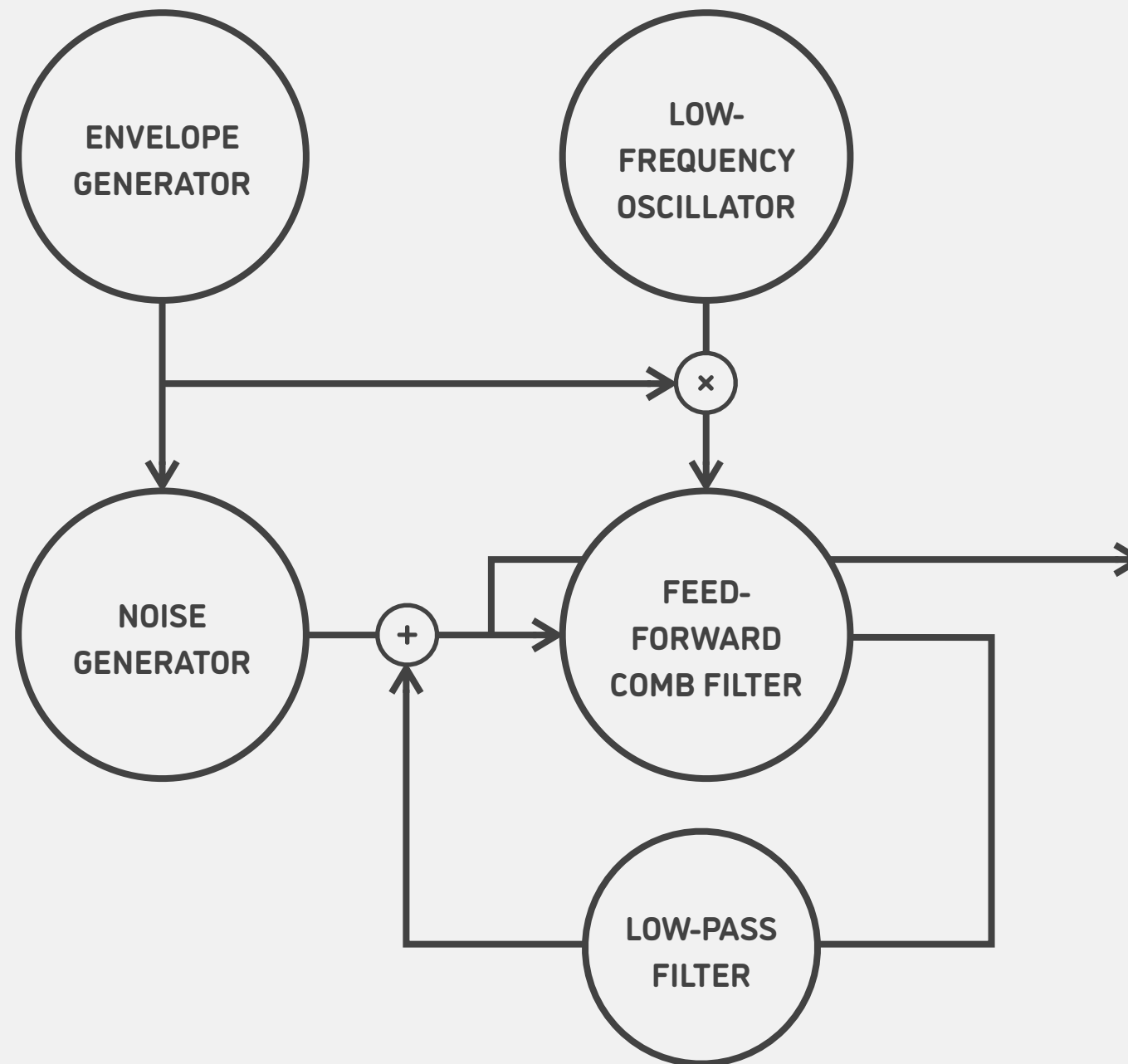
## STEP 3

In the Sound Librarian, click to highlight the target preset location, then drag and drop the desired preset file onto this location. Repeat this for all presets you'd like to install.

## STEP 4

Press the SEND ALL button in the PROGRAMS toolbar section.

# STRUCTURE DIAGRAM



# PARAMETERS

## SHAPE

Use the SHAPE knob of the multi engine oscillator to adjust the noise generator density from maximum (0%) to minimum (100%). The effect of this parameter vastly depends on the algorithm selected with **Noise Type**.

## SHIFT + SHAPE

Hold the SHIFT button and then use the SHAPE knob to adjust the frequency of the low-pass damping filter: from fully open (0%) to fully closed (100%). In the latter position, the damping filter effectively disables the resonator and the noise generator is output dry.

## Noise Type

Select one of 4 different noise algorithms: white noise, shot noise, velvet noise, semi-periodic noise. This and all other additional parameters are adjusted by switching to the MULTI ENGINE page in EDIT MODE and turning the PROGRAM/VALUE dial (**prologue** and **minilogue xd**) or by holding the OSC button, turning the TYPE dial and then turning the B knob (**NTS-1**).

## Resontr Type

Select the feed-forward comb filter feedback mode: negative (1) or positive (2). Negative feedback accentuates odd harmonics, producing a tube-like resonance. Positive feedback accentuates even harmonics, giving a string-like resonance.

## EG Amount

Amount of envelope generator output applied onto the noise generator. When applied, the envelope signal gradually decreases the noise density.

## EG Attack

Envelope generator attack time: 0-100% (exponentially mapped from 1 ms to 10 s). The EG is re-triggered with every keypress.

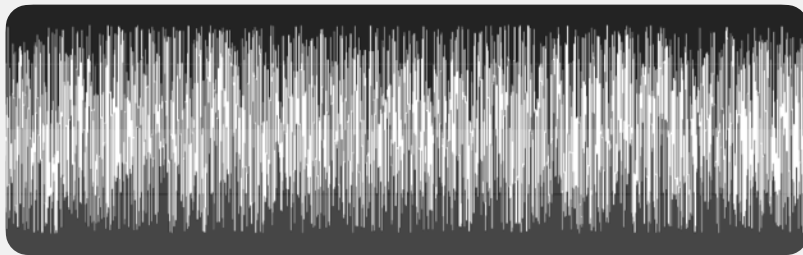
## LFO Amount

Amount of low-frequency oscillator output applied onto the resonator pitch: 0-100%. The LFO fade-in time is controlled by the envelope generator, so increasing the **EG Attack** parameter will also cause the pitch modulation amount to gradually go from none to the currently set value.

## LFO Rate

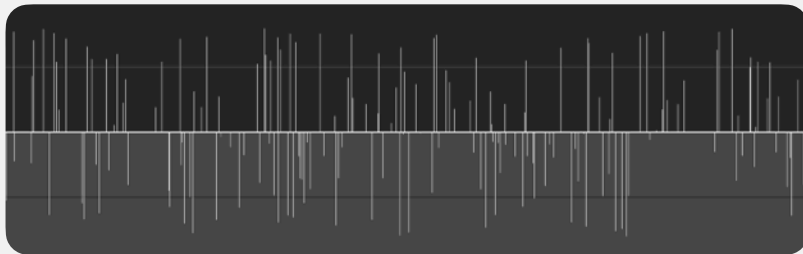
Frequency of the low-frequency oscillator: 0-100% (exponentially mapped from 0.1 to 10 Hz). The LFO phase is restarted from zero with every keypress.

# NOISE SCIENCE



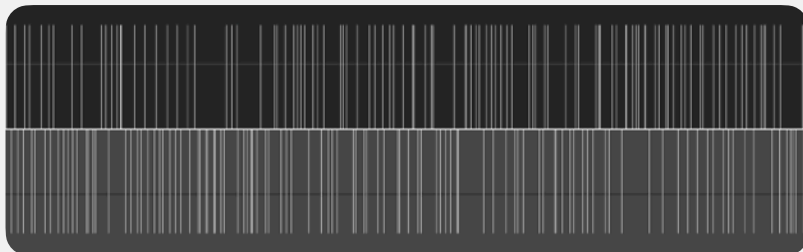
## White Noise

Outputs a random value for every sample. As density is reduced, it will only output samples closer to the extremum values, and is silent otherwise. At maximum density, produces no sound. This is the most spectrally rich algorithm in the noise generator.



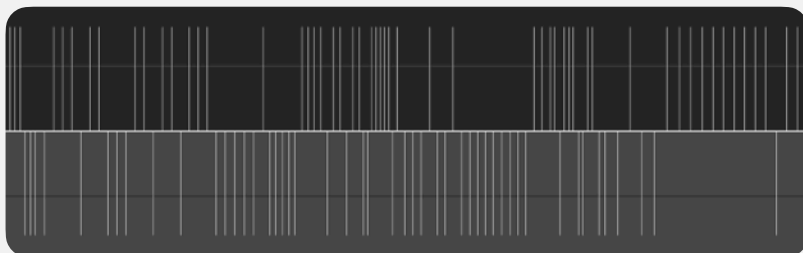
## Shot Noise

This is a “double random” noise generator that outputs a random value once in a given period of time (defined by the density parameter, approx. from 0.2 to 20 ms) and only when hitting a certain probability threshold – otherwise it’s silent. Produces sounds similar to particles falling on a surface or vinyl crackle.



## Velvet Noise

Outputs single pulses with random period between them (period range depends on density, approx. from 1 to 200 ms). This noise algorithm sounds similar to friction noise (e.g. bow).



## Semi-Periodic Noise

Repeats single pulses a random number of times with random period between the pulses (period range depends on density, approx. from 1 to 400 ms). At the end of the period, both the repeat times and the period is randomized - so the end signal is chunks of semi-periodic pulses.





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