Dense

vintage virtual analog synthesis
KORG oscillator plugin

USER MANUAL

Designed and developed by **Sinevibes** ©2023-2026

KORG
prologue
KORG
digital
KORG
minilogue xd
KORG
digital mkII

INTRODUCTION

Dense is a vintage virtual analog oscillator plugin for KORG **prologue**, **minilogue xd**, **NTS-1** and **NTS-1 mkII**. Its foundation consists of four separate oscillators with saw, square, triangle waveforms – generated using a technique often used in the early virtual analog synthesizers. In addition to mutual detuning, each oscillator has its own random pitch drift LFO, and global pitch can also be slightly off on every key press – together, these features simulate tuning instabilities and per-voice discrepancies in old analog synthesizers, going from very subtle to "badly needs calibration". **Dense** includes a total of 50 sound source configurations with different settings for the individual oscillator parameters such as waveform, coarse tune, output level, as well as optional ring modulation or bit depth reduction for an even wider sonic palette. To add final polish, there's a one-pole high-pass filter and an additional sine LFO for vibrato. Thanks to the various fluctuations and dynamic interactions happening between the oscillators, as well as between the oscillators and the synthesizer's filter, **Dense** can produce beautiful vintage-style sounds that are full of life and organic movement.

FEATURES

- Four virtual analog oscillators with saw, square, and triangle waveforms
- 50 oscillator configurations featuring different settings for waveforms, coarse tune, fine detune range, output level, ring modulation, and bit depth reduction
- Four random modulation generators (one per oscillator) for simulating vintage analog-style pitch drift
- Adjustable key pitch randomization for simulating vintage synthesizer tuning discrepancies between multiple voices
- Adjustable one-pole high-pass filter with cutoff frequency key tracking
- Built-in sine LFO for additional global pitch modulation
- Built-in lag filters for noise-free, ultra-smooth parameter adjustment and modulation

COMPATIBILITY

- KORG **prologue**
- KORG **minilogue xd**
- KORG **NTS-1**
- KORG **NTS-1 mkII**

PACKAGE CONTENTS

- Plugin files in individual formats for **prologue**, **minilogue xd**, **NTS-1** and **NTS-1 mkII**
- 25 presets for **prologue**, 25 presets for **minilogue xd**
- User Manual PDF

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** or the **KORG KONTROL EDITOR** application updated as well.

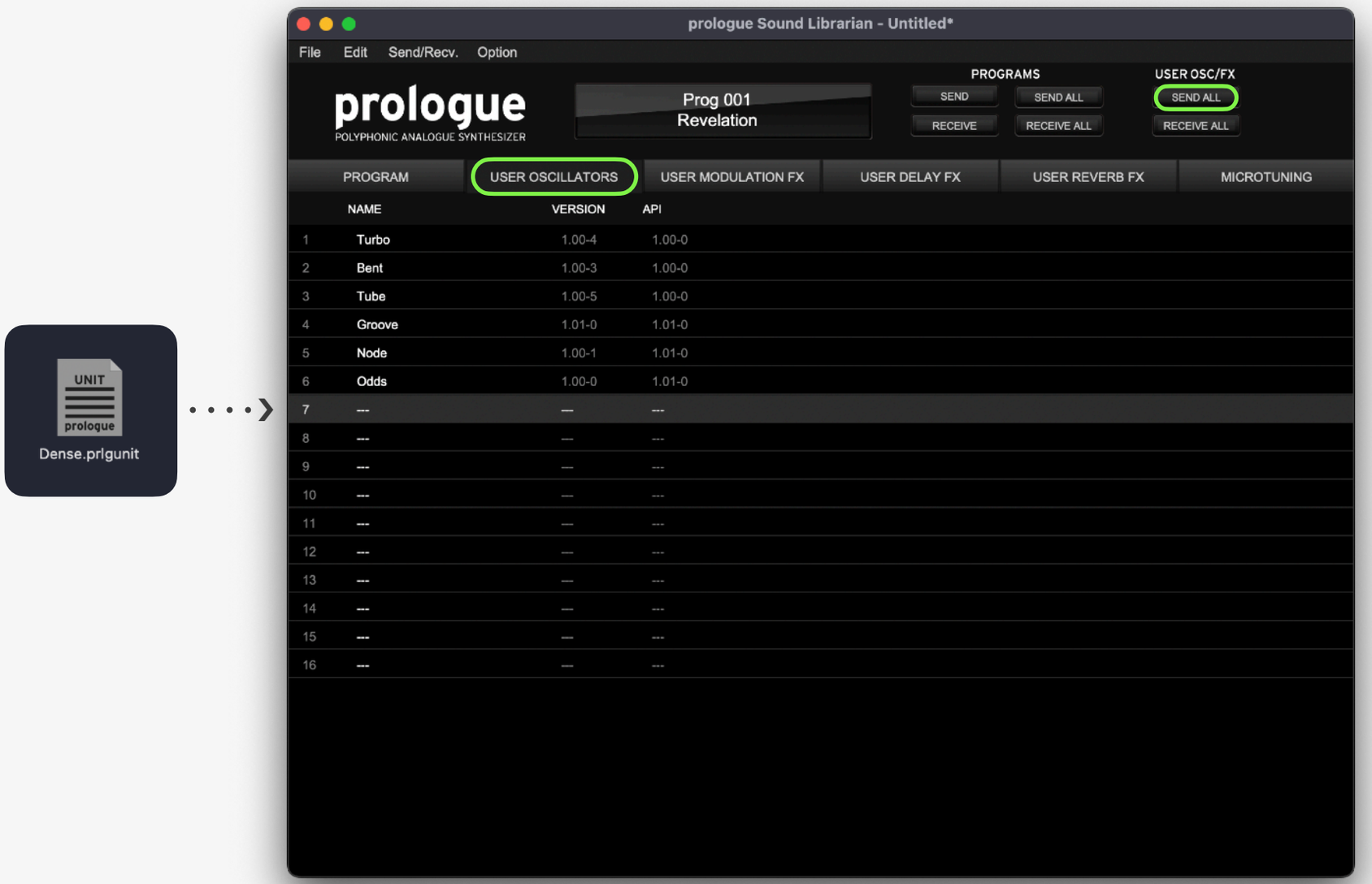
Follow the links below to check and download the latest software for your synthesizer:

- Software for KORG **prologue**
- Software for KORG **minilogue xd**
- Software for KORG **NTS-1**
- Software for KORG **NTS-1 mkII**

To get the latest version of **Dense**, visit the **Sinevibes** website and request your downloads:
www.sinevibes.com/updates

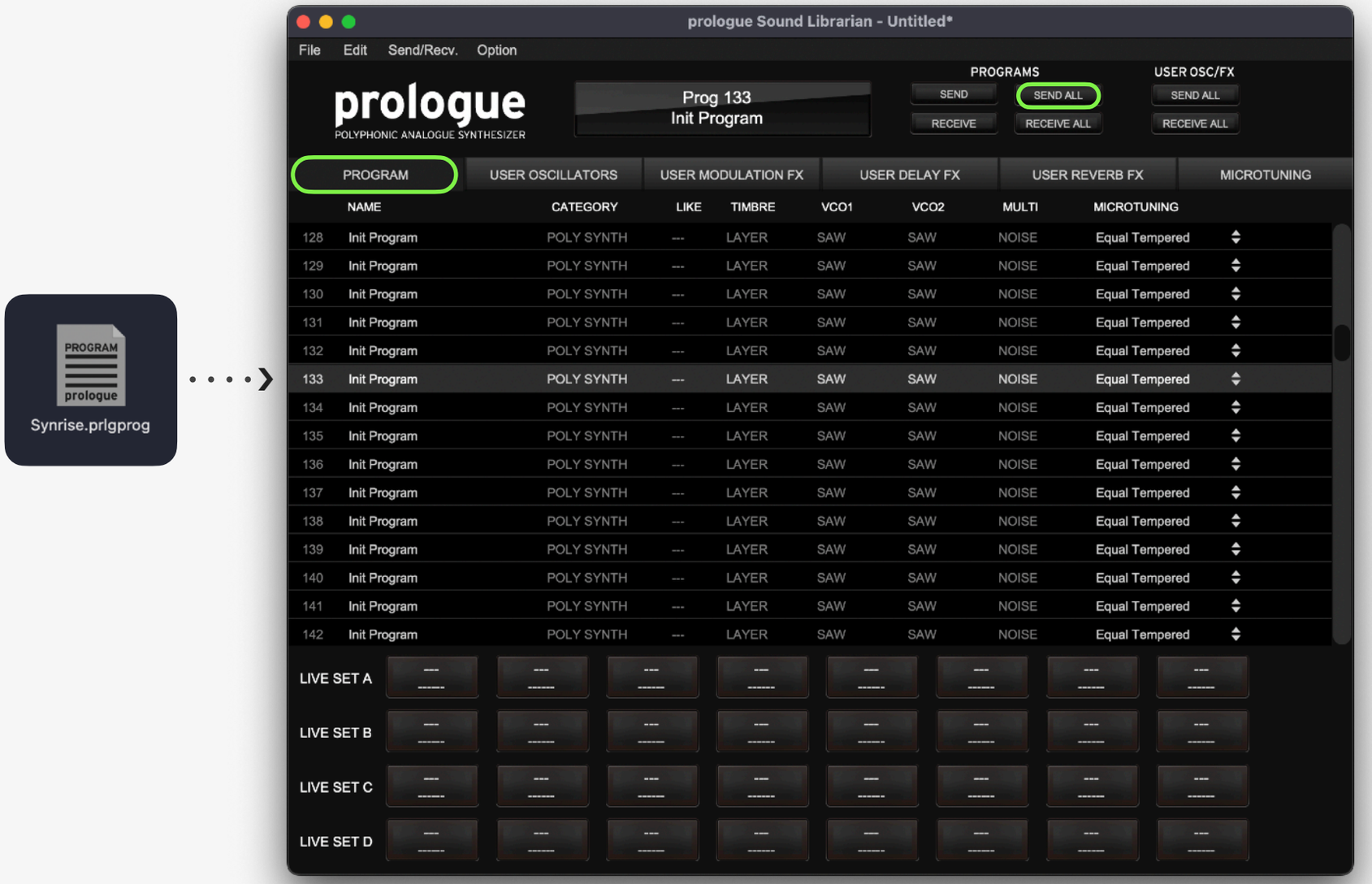
INSTALLING DENSE

1. Connect your synthesizer to your computer with a USB cable.
2. Turn the synthesizer on.
3. On your computer, launch the Sound Librarian or the KORG KONTROL EDITOR application (depending on your device model).
4. In this application, switch to the OSCILLATORS tab.
5. Drag and drop the **Dense** plugin file into any available oscillator slot.
6. Click the SEND ALL button in the USER OSC/FX toolbar section (Sound Librarian) or the SEND button in the OSCILLATORS tab (KONTROL EDITOR).



INSTALLING PRESETS

1. Connect your synthesizer to your computer with a USB cable.
2. Launch the Sound Librarian application on your computer.
3. Switch to the PROGRAM tab.
4. In the **Dense** package, open the Presets folder, and then open the folder corresponding to the slot number into which you installed the plugin – this is a very important step without which the presets won't work!
5. In the Sound Librarian, click to highlight the target preset location, then drag and drop the desired preset file into this location. Repeat this for all presets you'd like to install.
6. Click the SEND ALL button in the PROGRAMS toolbar section.



LOADING DENSE

To use **Dense** for creating your own sounds, you need to load the plugin into the MULTI ENGINE oscillator. It is best to start from an initialized preset to make sure that there are no pre-existing sound adjustments that could prevent the plugin from sounding correctly.

prologue

- Start from an initialized patch *
- In the MIXER, set VCO1 level to zero and MULTI level to the maximum.
- Set the MULTI ENGINE oscillator type switch to USR.
- Use the TYPE dial to scroll through plugins until you select **Dense**.

minilogue xd

- Start from an initialized patch *
- In the MIXER, set VCO1 level to zero and MULTI level to the maximum.
- Set the MULTI ENGINE oscillator type switch to USR.
- Use the TYPE dial to scroll through plugins until you select **Dense**.

NTS-1 / NTS-1 mkII

- Start from an initialized patch *
- Press the OSC button.
- Use the TYPE dial to scroll through plugins until you select **Dense**.

NOTE: on the **NTS-1** and **NTS-1 mkII** all DSP modules share the resources of the single CPU, therefore the **Dense** oscillator plugin can affect the total amount of effects you can run at the same time.

* Please refer to the user manual to learn how to initialize the current patch to its default settings.

EDITING PARAMETERS

Like all multi-engine plugins, **Dense** includes additional parameters that enable deep customization. Below are the instructions for accessing and editing them depending on the device model. For the detailed description of what each parameter does, please see the PARAMETER GUIDE.

prologue

- Press the EDIT MODE button and select PROGRAM EDIT.
- Press the function key #7 repeatedly to switch between the additional plugin parameters.
- Use the PROGRAM/VALUE dial to adjust the currently selected parameter.

minilogue xd

- On the **minilogue xd** module, make sure that the KEYBOARD switch is off.
- Press the EDIT MODE button and select PROGRAM EDIT.
- Press the sequencer key #10 repeatedly to switch between the additional plugin parameters.
- Use the PROGRAM/VALUE dial to adjust the currently selected parameter.

NTS-1 / NTS-1 mkII

- Press and hold the OSC button, then rotate the TYPE dial to enter the oscillator parameter edit mode.
- Use the TYPE dial to switch between the additional plugin parameters.
- Use the B knob to adjust the currently selected parameter.

PARAMETER GUIDE

Parameter	Range	Description
SHAPE / A	0 .. 100%	Amount of fixed pitch detune between the oscillators
SHIFT+SHAPE / B	0 .. 100%	Amount of random pitch modulation applied individually onto each oscillator
Source Type	1 .. 50	Select the sound engine configuration: this setting chooses one of the preset configurations that affect oscillator waveforms, coarse tune, fine detune range, output level, ring modulator level, and bit reduction depth. Detailed parameter value reference: SOURCE TYPES
High Pass	0 .. 100%	Cutoff frequency of the output 1-pole high-pass filter with key tracking
Drift Speed	0 .. 100%	Average frequency of the four random modulation generators (approx. 2 to 10 Hz)
Random Pitch	0 .. 100%	Amount of random global pitch offset applied on key press (up to a semitone)
LFO Speed	0 .. 100%	Frequency of the additional sine-wave LFO (mapped to 0.1 to 10 Hz)
LFO Depth	0 .. 100%	Amount of the LFO applied onto global pitch

SOURCE TYPES

1	4x saw	**11**	2x saw 2x saw (+1 octave)
2	4x square	**12**	2x square 2x square (+1 octave)
3	4x triangle	**13**	2x triangle 2x triangle (+1 octave)
4	2x saw 2x square	**14**	2x saw 2x square (+1 octave)
5	2x saw 2x triangle	**15**	2x square 2x saw (+1 octave)
6	2x saw 2x saw +7 semitones	**16**	2x square 2x triangle (+1 octave)
7	2x square 2x square (+7 semitones)	**17**	3x saw saw (-1 octave)
8	2x triangle 2x triangle (+7 semitones)	**18**	3x square square (-1 octave)
9	saw + square saw + square (+7 semitones)	**19**	3x saw square (-1 octave)
10	triangle + square triangle + square (+7 semitones)	**20**	3x square saw (-1 octave)

SOURCE TYPES

21	2x saw saw (-1 octave) saw (+1 octave)	**31**	2x square (-1 octave) + ring modulator
22	2x square square (-1 octave) square (+1 octave)	**32**	2x square (detuned by +7 semitones) + ring modulator
23	2x triangle triangle (-1 octave) triangle (+1 octave)	**33**	2x square (detuned by +1 octave) + ring modulator
24	saw + square saw (-1 octave) square (+1 octave)	**34**	square + triangle (detuned by +7 semitones) + ring modulator
25	saw + square square (-1 octave) saw (+1 octave)	**35**	2x square (-1 octave) + ring modulator 2x square (-1 octave) + ring modulator
26	2x saw (-1 octave) 2x saw (+1 octave)	**36**	2x square (-1 octave) + ring modulator 2x square (detuned by -5 semitones) + ring modulator
27	2x square (-1 octave) 2x square (+1 octave)	**37**	2x square (-1 octave) + ring modulator 2x square + ring modulator
28	2x saw (-1 octave) 2x square (+1 octave)	**38**	2x square (detuned by +7 semitones) + ring modulator 2x square (detuned by +7 semitones) + ring modulator
29	2x square (-1 octave) 2x saw (+1 octave)	**39**	2x square (detuned by +1 octave) + ring modulator 2x square (detuned by +1 octave) + ring modulator
30	saw + square (-1 octave) saw + square (+1 octave)	**40**	square + triangle (detuned by +7 semitones) + ring modulator square + triangle (detuned by +7 semitones) + ring modulator

SOURCE TYPES

41	2x square (-1 octave) + ring modulator 2x saw	**46**	4x saw + bit crush
42	2x square (-1 octave) + ring modulator 2x saw (+1 octave)	**47**	2x saw + bit crush 2x saw (+7 semitones) + bit crush
43	2x saw + ring modulator mixed	**48**	2x saw + bit crush 2x saw (+1 octave) + bit crush
44	2x saw + ring modulator mixed 2x saw + ring modulator mixed	**49**	4x triangle + bit crush
45	2x square (-1 octave) + ring modulator 2x square (detuned by +7 semitones) + ring modulator	**50**	2x triangle + bit crush 2x triangle (+1 octave) + bit crush

SINEVIBES

DOWNLOADABLE SUPERPOWERS