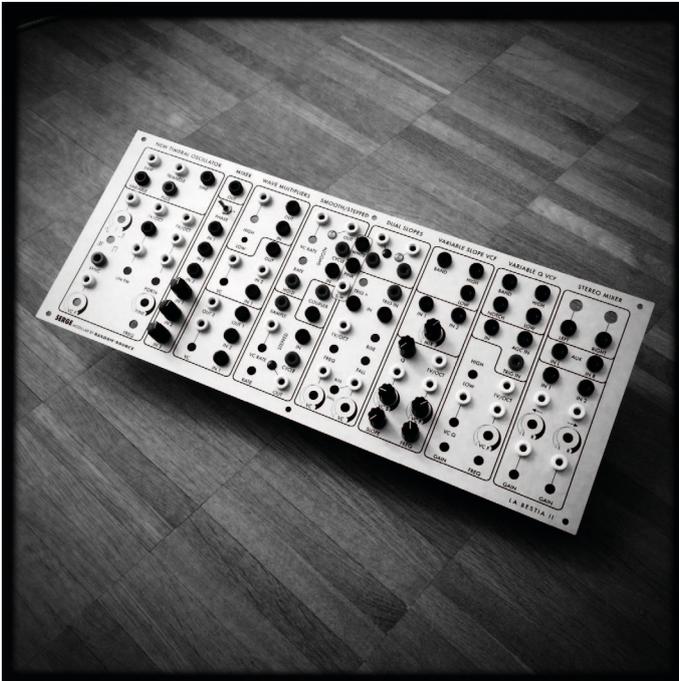


# SERGE “La Bestia II”



La Bestia II is a very dense voice and timbre panel, featuring the new 2017 Serge NTO with its amazing waveshaper. A DSG mk2 in an oscillator (“Timegen”) configuration offers up to 4 or more octaves of tracking. The famous Serge Wave Multipliers, an SSG and a Serge Noise Source, the 2 most prominent Serge filters, a high-end audio mixer (based on a NJR Muses op-amp) and the R\*S Stereo Mixer make this a powerful soundshaping tool and ideal companion for Edelweiss II.

All Random\*Source Serge modules are brought to you under license and in cooperation with Serge Tcherepnin.

Please refer to the individual build docs for the modules, this document only focuses on some general aspects and building choices.

## Before you start ... things to keep in mind

- All modules are designed to be powered by a linear PSU providing +/- 12V.
- All **SMT pcbs are highly sensitive to static electricity** - make sure you use adequate antistatic precaution.
- Make sure your soldering iron is up to the task - all pcbs have GND-planes that sink heat, especially on 4-layered pcbs, so a regulated iron with enough power is recommended.
- For the Slopes (DSG mk2 as “TimeGen Osc”) you need a contemporary DSG mk2 pcb which comes pre-configured for SEPARate control of Rise and Fall. Therefore you have to configure **(only) the lower half of the pcb to COMmon mode** (by removing two 0R resistors at the two spots marked SEP, left and right of COM, and setting a jumper at COM or solder in a 0R resistor onto the pads underneath). **Please refer to the Carnivore build manual for details.**
- When installing the **Wave Multipliers** main pcb, one of the electrolytic caps is likely to touch the tip of one of the banana jacks - **to avoid this, simply bend the tip of the banana jack slightly so that there is no contact.** This has no effect on the function of the banana jack.
- Do not mix up the switches!

## Choices

- The **Audio-Mixer** can be built so that the inputs are AC-coupled (for audio-only, black jacks) or DC -coupled (for audio and CV use, white jacks). If you go for a pure audio version, you can install an additional through-hole capacitor (non-polar, i.e. film cap - 470nF or 1uF - or a larger NP/BP electrolytic - 10uF or 47uF - for audio use). The larger this cap, the lower the frequencies that pass. There is a 100nF capacitor already installed, so whatever you add increases that value. **For DC, use a link instead of the cap.**
- For the Variable Q Filter (VCFQ) you can **choose either the (classic) through-hole VCFQ version** by Random\*Source which corresponds to the original behavior of the VCFQ, which includes, in particular, a little bit of resonance even when the resonance (VC-Q) knob is fully turned down. **Or a special edition VCFQ version in SMT** that allows you to turn the resonance completely off, but gives you the same resonance behavior as the classic version when you turn the Q knob up about 10% or more. In addition special edition also features a high-end op-amp.
- For the **Noise Source you have to select a noise transistor**. It is recommended to use a socket for the (through-hole) transistor or simply stick the transistor in (without soldering) so you can test a couple - while the aim of the transistor manufacturers is to have as little noise as possible, we are interested in exactly the opposite for the noise source, so check out level and sound(!) of various types and pieces. Since the temperature of the transistor is also relevant for the noise generation, it is **recommended to wait for a couple of minutes so that the transistor can warm up** before you evaluate the noise quality.

## Power Consumption

total (estimated)  $\approx$  550 to 600 mA @ +12V and  $\approx$  500-550mA @ -12V

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