

C15

For those who love to play keys.



**NONLINEAR**LABS

# An Instrument with Character

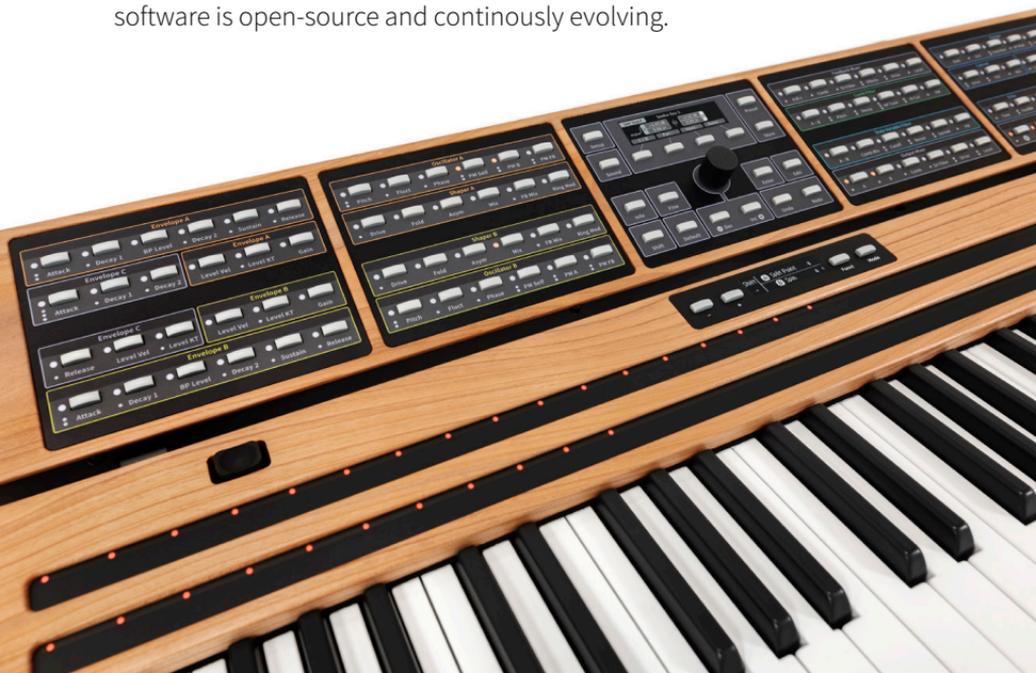
The C15 is an instrument for demanding musicians and sound designers. It is designed for playability and detailed control over the sound. The top-quality semi-weighted keybed drives a unique digital synthesis engine. Its sound character spans from crisp and organic to complex and experimental.

The 24 voices respond expressively to the highly-resolved key velocities, aftertouch, a specially-designed ergonomic pitchbend lever, two long touchstrips (ribbons), and up to four pedals.

The advanced user interface supports spontaneous sonic changes as well as extensive and deep sound design. Every parameter on the C15 can be directly selected by a button. In other words, all functions have a dedicated haptic control surface.

In addition, a graphical user interface can be displayed on any device that has a browser and Wi-Fi. It gives access to the entire parameter set and is a comfortable environment for managing presets. It does not require a software installation.

Like many classical instrument builders, we have chosen wood for most parts of the housing. All other parts are made of steel or aluminium. The C15 is a sustainable product, manufactured in local production. The software is open-source and continuously evolving.



# Puristic Sound Engine

The C15's polyphonic audio engine uses the strengths of digital sound synthesis. We have chosen a puristic approach based on elementary mathematical algorithms. All signals are generated, modulated, shaped, and filtered in real-time so that they can be dramatically and directly influenced by dynamic playing. Every nuance is thus translated into a variation in sound.

The signal processing structure has evolved over many years of continuous development. It has been condensed down to an essential, yet powerful arrangement of carefully-chosen components. The only signal sources are two sine wave oscillators which are connected to each other and to a feedback bus for phase modulation. Their signals are then processed by two wave shapers, a comb filter, a state variable filter and a chain of five stereo effects.

The C15's comb filter can be used as a tuned resonator, providing a spectrum of sounds often reminiscent of acoustic instruments. Two mixers combine the signals from different points along the signal flow for the output and for the feedback bus. The results of the feedback architecture can be very complex and organic.



# The C15 is Different

- Unique synth engine - based on sine oscillators
- Phase modulation (a.k.a. FM), wave shaping, subtractive and physical modeling components
- Flexible feedback structure - complex, organic sound
- Switch-free signal paths - allowing continuous sound morphing
- Top-quality semi-weighted keybed
- High resolution for velocities, control sources, parameters, and MIDI
- Continuous digital audio capture - hours of FLAC-compressed audio stored in a ring buffer
- Wireless, browser-based access to a graphical user interface
- Exchangeable panel overlays - for future synth engines
- The base unit can be used without the panel unit
- Open-Source, continuous software development
- Most components manufactured in Germany
- Direct sales and customer support, flexible payment plans



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