

Synclavier Digital Regen



Soft-launched late last year to widespread critical acclaim at the Synthplex synthesizer expo and electronic music festival hosted at the Marriott Convention Center in Burbank, CA, USA with pre-orders opening for fulfilment in 2023, timeless synthesis product manufacturer Synclavier Digital announces wider availability of Regen - released as a desktop synthesizer that is, in short, a real regeneration of New England Digital's seminal Synclavier II digital synthesizer that took the pro audio industry by storm when introduced in its initial incarnation in 1980 (evolving beyond that to blaze more technological trails with polyphonic sampling and, ultimately, DAW - Digital Audio Workstation - capabilities well before that term was invented, even), extended and enhanced to take advantage of the increased computing power available today to make it as compelling in a modern setting as the prohibitively pricey original did during its time (finding favour with top-tier film composers, record producers, and recording artists), while the considerable cost and size reductions associated with Regen's present-day design criteria conversely position it well within reach of (almost) anyone - as of June 29...

After a two-year development period leading to its soft launch late last year, Synclavier Digital's Regen readies and steadies itself for use in a modern setting as a timeless desktop synthesizer distinctively designed around a rugged, backpack-friendly - 310mm (W) x 260mm (D) x 42mm (H) - aluminium housing weighing in at

1.8kg and finished in a sand-textured black colouration complimented by a 'Synclavier-red' surround securely set upon non-slip rubber plinths, and also embracing ergonomic features such as VESA mount compliance. Connectivity clearly abounds in that eye-catching surround, with MIDI IN and THRU ports provided on 1/8" TRS connectors alongside a Phones TRS jack (for 320 - 3000 headphones to monitor master audio with independent volume control); DC-coupled stereo (L and R) Balanced Outputs on XLR connections (for studio use at pro-level 4dBu, with associated GND - ground - lift); DC-coupled stereo (L and R) Single-Ended Outputs on TS connections; HOST USB port (for connecting to a computer for MIDI input from a DAW); four Accessories USB ports (for connecting MIDI keyboard controllers, sequencers, and audio interfaces - or even a standalone Synclavier KNOB, should someone be lucky enough to own one of these rare re-engineered recreations of the original knob central to the seminal Synclavier II digital synthesizer's speedy control surface, specially commissioned by co-inventor Cameron Warner Jones as a USB device); and an SD CARD reader (for unlimited user timbre and sample libraries above and beyond Regen's 1GB of onboard factory content). It is, however, Regen's unique user interface that sets it apart from today's production pack, dominated as it is by two glorious full-colour sunken OLED (Organic Light-Emitting Diode) displays with advanced animated graphics, contemporarily comprising a so-called VK display - duly named on account of its mimicking the display from the top-tier Synclavier II VPK (Velocity Pressure Keyboard) edition emerging back in 1985 - that shows the most pertinent information, as well as a main modal display dominating the NAVIGATION panel that shows current parameters, user settings, timbre library, and more. Meanwhile, responsive silicon back-lit parameter buttons are grouped accordingly, complimented by 12 touch-sensitive selector buttons that can handle gestures to swiftly select multiple PARTIALS or TRACKS, while the vertical-value SWIPER is touch accurate to 128 levels of resolution for precise control of every parameter as a virtual knob capacitive slider with epoxy coating.



Cutting to the technological chase, then, Regen's rich sound-design capabilities are anchored around an advanced DSP (Digital Signal Processing) synth engine that powered the seminal Synclavier II digital synthesizer. It is, in fact, the self-same DSP engine modelled in software with all the quirks and nuances of the original hardware that lend Regen a musicality seldom found in modern synthesizers.

Saying that, though, this has been extended and enhanced to take advantage of the increased computing power available today to deliver 12 separate tracks of multi-timbrality, assignable to MIDI (Musical Digital Interface) tracks and keyboard ranges; up to 98 simultaneous voices (albeit voice count is dependent on system load and likely to be much higher in typical scenarios); 12 partials per timbre with each partial - always essential to Synclavier sound design, as reflected by its inventors filing a patent on the Partial Timbre Sound Synthesis Method and Instrument back in 1984 - operating in one of the available - Additive (supports coefficient and phase control of 24 harmonics), Sample (up to 24 samples can be placed on the partial's patchlist), Subtractive (can have a noise generator or up to nine de-tuneable continuous sawtooth waveforms), and Hybrid (resynthesized samples, resynthesis being a technique developed by New England Digital in the Eighties to create sounds with precisely-controlled harmonics that vary over time) - oscillator modes; timbre-level effects, including a stereo reverb algorithm (with pre-delay and presets library), highly-optimised multi-mode filter (with sophisticated filter envelope), and bit-crusher (for use with Additive, Sample, and Hybrid modes); FM (Frequency Modulation) controllable per partial (all modes) with envelope; and a sophisticated modulation system that allows many parameters to be controlled via MIDI, LFOs (Low Frequency Oscillators) — 24 per timbre, or driven by envelopes - 24 per timbre. The high-resolution 24-bit stereo DAC (Digital-to-Analogue Converter) circuit involved in allowing those rich sound-design capabilities to shine forth for all to hear is designed for ultra-low noise floor with 11dB of headroom over nominal level, delivering a measured 130dB of dynamic range and a 50kHz sample playback rate - to take full advantage of the Synclavier II DSP synth engine, which was optimised around the 50kHz sampling rate of the original 'poly-sampling' system, and to give accurate reproduction of many of the included New England Digital (NED) samples that were recorded at 50kHz. Indeed, inbuilt performance at such high levels see to it that Regen is never going to be the weakest link in anyone's audio chain for sure.

Samples are, of course, clearly integral to Regen, which features over 2,000 royalty-free examples - including over 350 selected original NED samples and 195 newly-commissioned ones from sound design luminaries like English musician and soul singer Jamie Lidell and Canadian keyboard player Leith Fleming-Smith - alongside 550-plus preset timbres categorised by instrument tags, to include 64 hand-picked examples by American musician, composer, and conductor Anthony Marinelli from his film composing heyday - think *Blue Thunder* (1983), *WarGames* (1983), *Starman* (1984), and *Stakeout* (1987), having originally worked out of a converted pool-house at his parental home eventually equipped with a Synclavier II digital synthesizer, subsequently stepping up to a Synclavier D-to-D (Direct-To-Disk) digital recording and editing system specially configured to meet the needs of the film and video post-production professional. Polyphonic aftertouch and MPE (MIDI Polyphonic Expression) are supported by Regen, and many presets are optimised for MPE.

It is, quite clearly, fair to say that Regen has history. After all, over 40 years of synth design has led to its creation as Cameron Warner Jones' justified response to a question hitherto repeatedly deflected since NED's dissolution: "When are you

going to do another hardware version of the Synclavier?" Effectively enlisting Craig Phillips - with whom Synclavier had previously collaborated on the aforesaid audacious Synclavier KNOB — to play the part of original Synclavier hardware designer Sydney Alonso, the resulting Regen is a sound-designer's dream in a timeless desktop package, one to which the Synclavier Digital dream team has added more firmware-upgradable features since its eye- and ear-opening introduction, including resynthesis of samples and more microtonal options, plus six additional libraries of presets available to download. Concludes Craig Phillips: "Looking at this synth now, and the complexity of it from both a hardware and software standpoint, it seems unreal that we completed the development, but back when Cameron and Sydney Alonso were working on the Synclavier II together, that was a monumental achievement, too."

Regen retails for \$2,500.00 USD (excluding any local taxes or import duties); if purchasing directly from Synclavier Digital's online Store, the webpage will calculate a local currency price - including free postal service shipping in the USA and Canada, while other express and international shipping options are shown during checkout - based on a fair exchange rate at that time. (That webpage also lists Synclavier Digital's growing global network of dealers in the USA, Europe, Canada, and Japan, should purchasers prefer to shop locally in those territories.)

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