

THE SOUND MACHINE

nord[®] G2X
MODULAR

nord[®]
MODULAR
G2

THE BEST OF BOTH WORLDS

No doubt, computers have become a natural part of today's music production. The process of editing sounds and sequences is so much easier from a computer screen. Still keyboard players feel the need for portable instruments. Nord Modular G2 offers you the best of both worlds and provides an effective solution for the working musician. While remaining true to the traditional modular synthesis concept it manages to go where no modular synthesizer has ever gone before.

THE SOFT SYNTH IN A HARD CASE

The G2 concept is based on a stand alone hardware keyboard with a freely configurable sound synthesis architecture and a software user interface (Editor) made for Mac OSX and PC. The sound engine in the G2 synthesizer runs on a group of digital signal processors (DSP's), together with high speed – high resolution AD and DA converters. A G2 sound is named a Patch and is made with virtual modules and cables. Simply 'drag & drop' modules and cables directly on the computer screen to create your own G2 sounds. A Patch can be modeled after an existing synth or it can be the synthesizer of your dreams.

STUDIO OR STAGE

Producers, DJ's, musicians! – When you get into the G2 world, you'll find that this is the ultimate tool for creating your own unique sounds and for reproducing any of the original classic analog synths as well. Furthermore, the G2 offers a number of previously unavailable opportunities particularly suitable for those of you performing live on stage. Just disconnect your synth from the PC/Mac and use it as a freestanding instrument. The G2 conforms exactly to your needs, letting you assign all controllers, inputs and outputs the way you want them, plus letting you control your external equipment through MIDI automation. Say goodbye to your effect rack. Design the set-up from your computer and run it via the G2. – Let the G2 become the brain of your studio or live keyboard rig.

The G2 is available in three different hardware models



THE NORD MODULAR G2

G2 is the compact version and has a three-octave keyboard with aftertouch, one modulation wheel, one Pitch Stick and eight rotary encoders, all easily assignable. Five separate LCD's give instant overview and control of your patches. Four high quality analog inputs, one with a built in microphone amplifier, provide the connections for external sources. Four LED's above the keys indicate the split-point configuration. The G2 is expandable with a voice expansion board.

THE NORD MODULAR G2X

G2X is the big brother and offers the same features as the Nord Modular G2 with a few extras. The keyboard has five instead of three octaves. Moreover, the keys are semi-weighted for a more sensitive touch. It's fitted from the start with a voice expansion board offering twice the processing power compared to its little brothers (G2 and G2 engine). It holds two extra easily assignable modulation wheels. All three wheels are equipped with LED's to indicate their positions. Furthermore, the G2X is delivered with a gooseneck microphone that you connect onto the top panel.

THE NORD MODULAR G2 ENGINE

ENGINE is a one-unit high 19" rack version of the G2. Perfect for studios and computer studio environments. It has the same processing power as in the G2 three-octave key version, but doesn't feature top-panel control buttons, microphone- and pedal input. Connect the G2 Engine via the USB port to the PC/Mac and do all your editing from the intuitive and elegant PC/Mac editor. As the G2 three octave key version, the G2 Engine is expandable with a voice expansion board.

Analog XLR microphone input with built in adjustable preamp.

The **Morph** function makes it easy to control multiple parameters from one source. You can even set the range for each parameter individually. Assign parameters to eight separate controllers (Morph groups) per patch, either from the editor or directly from the instrument. Now we're talking serious real-time performance control!

Assign parameters freely to the high-resolution rotary encoders. Their circular LED graphs together with the four LCD's give you full visual overview.



Smart **Navigator** buttons with **Sort Mode** feature facilitate fast navigation among sound categories.

In **Performance Mode** you can recall any stacks and splits of up to four patches simultaneously via Clavia's classic **Slot** interface.

Every patch holds up to eight variations, easily recalled from the **Variations** buttons.

Four LED's for visual reference of split-points.

The **Parameter Page** system provides real-time tweaking of up to 120 parameters.

Four inputs/outputs ensure extraordinary live performance flexibility.



The G2X is equipped with three assignable modulation wheels

THE MODULAR CONCEPT

It doesn't matter whether you're an 80's retro fanatic or a producer of the most recent club music. With the G2 you can develop sounds similar to those created by old analog patch synthesizers or simulate acoustic instruments. You can also push yourself into a world of sounds that no single instrument has ever delivered before. While sampler players remain cold as ice, the G2 modular architecture offers warmth and presence to your sound. Moreover, the average G2 patch (sound) uses about 3(!) kilobytes of memory, which makes sharing over the Internet a piece of cake.

To get the feel of how it works, consider the way a guitarist connects his boxes and pedals. You build the sound piece by piece on the computer screen in a simple and intuitive way following your desired signal flow. Many of the G2 modules were also found in traditional analog synthesizers. Among the selection are well-known building blocks such as oscillators, filters, sequencers and envelope generators as well as more complex modules like vocoders, pitch tracker, the mystic Bode shifter and new exciting modules such as physical modeling. You can also build your own unique FX processors and run both internal and external signals through them. Future upgrades will include new modules available for free from www.clavia.se. Combine all this with a logical, user-friendly knob panel and you have the most flexible synthesizer ever seen – the Nord Modular G2!



For products with this symbol, Clavia supplies downloads free of charge. To get the most out of your G2, go to www.clavia.se for new patches and OS upgrades.

CHOOSE BETWEEN MULTIPLE MODULES...



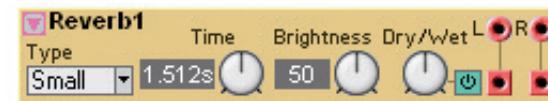
Start with an oscillator, choose between six waveforms...



...pick a filter and adjust the resonance and frequency...



...add an ADSR envelope...



...a little reverb, and then...

AVAILABLE MODULES

IN/OUT GROUP

- 2 output
- 4 output
- 2 input
- 4 input
- FX area in
- Keyboard voice
- Keyboard mono
- Device
- Status
- Note detection
- Name bar

NOTE GROUP

- Note quantizer
- Key quantizer
- Partial quantizer
- Note scaler
- Glide
- Pitch tracker
- Zero crossing counter
- Level scaler

OSCILLATOR GROUP

- Oscillator A
- Oscillator B
- Oscillator C
- Oscillator D
- Phase modulation oscillator
- Shape oscillator A
- Shape oscillator B
- Dual oscillator
- String oscillator
- Percussion oscillator

LFO GROUP

- LFO A
- LFO B
- LFO C
- Shape LFO A
- Clock generator

RANDOM GROUP

- Random A
- Random B
- Random clock A
- Random clock B
- Random trig
- Random pattern

ENVELOPE GROUP

- ADSR env
- Hold env
- Decay env
- AD/R env
- AHD env
- ADDSR env
- Multi Stage env
- AHD-Mod env
- ADSR-Mod env

SHAPER GROUP

- Clip
- Overdrive
- Saturation
- Exp Shaper
- Wavewrapper
- Static Shaper
- Rectifier

FILTER GROUP

- LP 6-36 dB/oct
- HP 6-36 dB/oct
- Nord 12/24 dB/oct
- Classic LP 12/18/24 dB/oct
- Multi Filter 6/12 dB/oct
- Static 12 dB/oct
- Wah-Wah
- Voice Filter
- Vocoder
- EQ Peak
- EQ 2 band
- EQ 3 band
- Phase Filter
- Comb Filter

MIXER GROUP

- 1-1 Mixer, level+on/off
- 1-1 Stereo Mixer, level
- 2-1 Mixer, level+on/off
- 2-1 Mixer, level+inv
- 4-1 Mixer
- 4-1 Mixer, level
- 4-1 Mixer, level+on/off

- 4-1 Stereo Mixer, level+on/off
- 8-1 Mixer
- 8-1 Mixer, level
- 8-1 Fader, level+on/off
- 6-1 Stereo Mixer, level+pan
- Pan
- Cross-fader
- 1 to 2 Fader
- 2 to 1 Fader

SWITCH

- On/Off, momentary
- On/Off, toggling
- 2-1 Switch, momentary
- 2-1 Switch
- 4-1 Switch
- 8-1 Switch
- 1-2 Switch, momentary
- 1-2 Switch
- 1-4 Switch
- 1-8 Switch
- 2-1 Value Switch
- 1-2 Value Switch
- Window Switch
- 8-1 Multiplexer
- 1-8 Multiplexer
- 8-1 Multiplexer w/crossfade
- Sample & Hold
- Track & Hold

LEVEL GROUP

- Constant
- Constant Switch, momentary

- Constant Switch, toggling
- Level Add
- Level Converter
- Level Amplifier
- Level Multiplier
- Level Modulator
- Envelope Follower
- Noise Gate
- Compare to level
- Compare to signal
- Compare min/max
- Modulation Amount

LOGIC GROUP

- Gate
- Logic inverter
- Flip Flop
- Clock divider
- Clock divider fixed
- Pulse
- Logic delay
- 8 Counter
- Binary Counter
- AD Converter
- DA Converter

SEQUENCER GROUP

- Event sequencer
- Value sequencer
- Level sequencer
- Note sequencer
- Control Sequencer

FX GROUP

- Stereo chorus
- Phaser
- Flanger
- Digitizer
- Frequency Shifter
- Pitch shifter
- Scratch
- Reverb
- Compressor

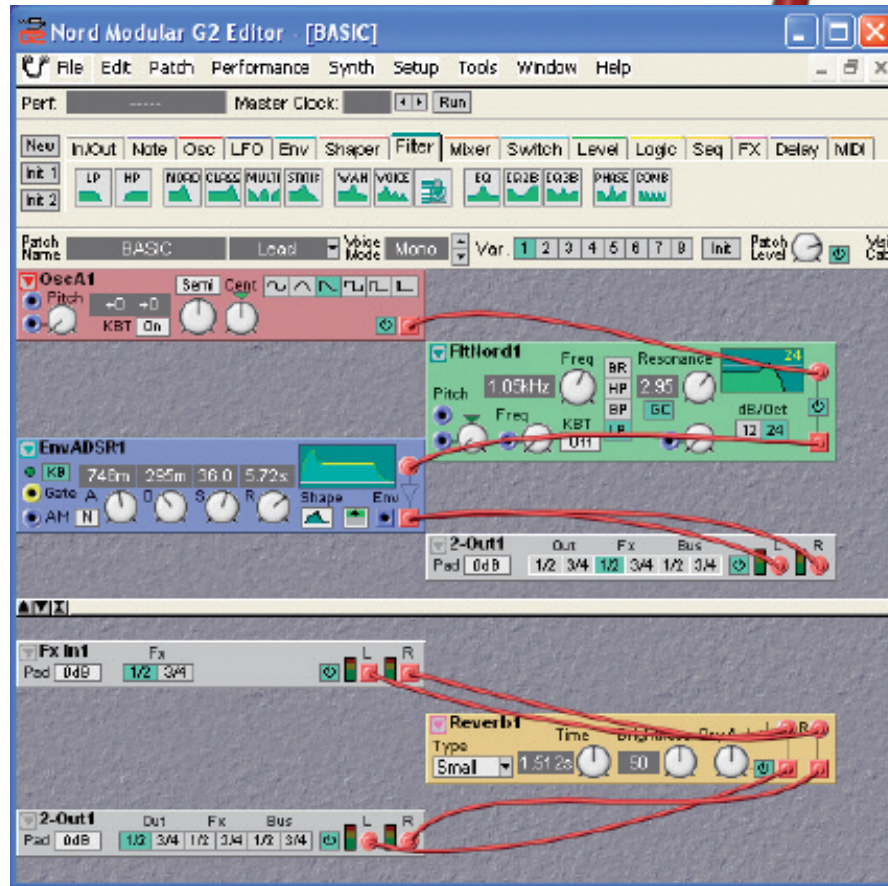
DELAY GROUP

- Static Delay
- Single Delay
- 2 Tap Delay
- 4 Tap Delay
- 8 Tap Delay
- Shift Register
- Clocked Delay
- Delay A
- Delay B
- Stereo Delay

MIDI GROUP

- MIDI Ctrl Send
- MIDI Prg Chg Send
- MIDI Note Send
- MIDI Ctrl Receive
- MIDI Note Receive
- MIDI Note Zone
- MIDI Control Automate

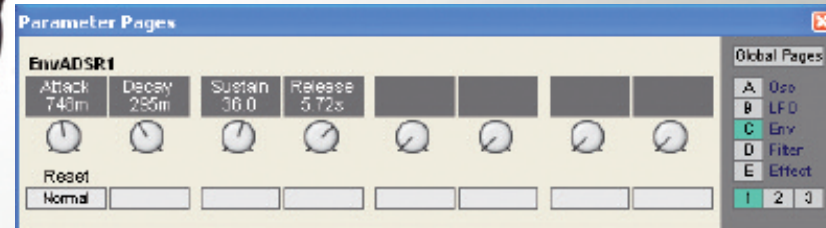
...COMBINE THEM INTO YOUR
VERY OWN SYNTH



LET THE FUN BEGIN

When you start building a new patch in the G2 computer editor you will see an empty desktop area divided into three major sections; the toolbar, the voice area, and the FX area. The voice area is the polyphonic part of the system and it is here you drag & drop your basic synthesizer building blocks, which we call modules. There are over 160 modules to choose from and they are categorized under different tabs in the toolbar. Connect the modules you have placed on the desktop with virtual cables. In the lower section, the monophonic FX area, you drag modules mainly used for the effect part of your patch such as delay, reverb and so on. Tweak the knobs and buttons to refine the sound you have created. The G2 editor offers user-defined coloring of modules and color-coded module groups to make it easy to patch and layout your sounds.

You'll be surprised by the flexible hardware integration. Assign various parameters to the instrument's top panel knobs, buttons and controllers either via the Parameter pages or via the Morph groups. The Parameter pages give you general control of parameters from the instrument's eight rotary encoders, which is especially handy when you're in the process of creating patches. The Morph groups are designed to provide total control and flexibility to live performers. Whatever you choose we've made it easy for you – just drag & drop and you are ready to go. When you are satisfied with your setup, just disconnect the G2 from the computer and bring it to your gig. All your sounds reside in the G2 and are retrievable with just a push of a button.



Assign parameters to G2's top panel controllers with easy Drag & Drop

NORD MODULAR G2 TECHNICAL SPECIFICATIONS

THE MODULAR SYSTEM

Description	Hardware synthesizer and PC/Mac editing software working seamlessly together.
Sound Generation	Modular synthesis – freely configurable sound architecture. Combine Modules into a Patch (sound) in any desired structure, virtually without limitations.
Sound Hierarchy	- A patch is divided into two sections: The Voice area (VA) holds the polyphonic part of the sound. The Effect area (FX) holds the monophonic part of the sound. - 8 Variations per patch for fast recall of favorite settings.
Sound Modules	Over 160 Modules organized in 16 categories.
Audio Quality	True 24 bit processing system with 96 kHz sampling rate.
Audio Effects	Totally free configuration of effects via the dedicated Effect Area .

VOICING

Performances	A Performance consists of up to 4 Patches together with information about MIDI settings, layers, splits, etc.
Multitimbrality	Features Clavia's classical Slot concept. 4 slots (edit buffers A to D), each one holding one Patch independently.
Splitting	With the Split Point button you can create up to 4 split points either freely assigned or set to the 4 predefined ones indicated by LEDs along the keyboard.
Polyphony	<i>Maximum</i> of 32 voices (depending on Patch complexity).

SOUND STORAGE

Synthesizer	A dynamic file system (6 MB) with the maximum capacity of holding: - 32 Banks divided into 128 memory locations for Patches. - 8 Banks divided into 128 locations for Performances.
Editor Software	- Patch Browser enables fast access to Patches stored on the computer hard drive as well as the internal synthesizer file system. - Bank Upload/Download dialog for quick transfers/backups of complete banks of patches between your computer and synthesizer.
File Size	Small Patch files (an average of 3 kb) make it easy to share and store.

MORPHING

Concept	Morphing makes it easy to control multiple parameters from one source (e.g. modulation wheel, aftertouch) with the possibility to set the range for each parameter individually.
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PARAMETER PAGES

Concept	Parameter Pages give instant access to 120 parameters, either from the synthesizer's top panel or from the software editor.
Page Modes	- Single Patch mode – Pages are linked to one specific patch. - Global mode – Pages control parameters in all 4 slots from the same page.

EDITOR SOFTWARE

User Interface	- A tab system organizes available Modules . - Multiple Multi-level Undo/Redo function. - Custom color of individual modules for easy overview. - Fast replace function for modules, replacing keeps track of connections and parameter settings. - Instant Hint views system displays configurations of MIDI CC#, Morph programming and assigned parameters.
Help System	Integrated help system brings you answers to your questions.
Min. Requirements	Macintosh Mac G3, 400 MHz, USB-port, 128 MB RAM, OSX 10.2 (or later) Windows PC Pentium II, 500 MHz, USB-port, 128 MB RAM, Windows 98SE/2000/XP

MIDI IMPLEMENTATION

External	- 16 MIDI channels via MIDI In, Out and Thru. - Note On/Off, Aftertouch, Pitch Bend, Program Change, MIDI CC# (freely assignable to any parameter), SysEx dump and Bank Select.
MIDI Sync	- G2 locks to any external MIDI clock and song position pointer. - G2 can function as a master clock for external gear.
Extras	Can produce and process MIDI information on any channel (regardless of the Slot's main channel) through a set of specially designed MIDI processing Modules .

SYNTHESIZER CONTROLLERS

G2 and G2X (key models)

Modulation Wheels	- G2 – 1 modulation wheel. - G2X – 3 modulation wheels with extra built in LEDs.
Pitch Stick	Clavia's famous, patented high-resolution Pitch Stick .
Keyboard	- G2 – 3 octave synth keyboard with aftertouch. - G2X – 5 octave semi-weighted keyboard with aftertouch.
Octave Shift	2 buttons extend the range of the built in keyboard.
Keyboard Hold	Makes every note you play sustain until you press a new key.

SYNTHESIZER PANEL

G2 and G2X (key models)

Parameter Pages	5 page buttons and 3 column buttons provide real-time tweaking of up to 120 parameters with 8 rotary encoders visualized by 4 LCDs.
Patch/Menu Navigation	- Rotary Dial and 4 Navigation buttons for rapid access to Patches and Performances .
Slot Control	4 Slot buttons facilitate working with 4 Patches simultaneously.
Morphing	8 buttons support fast programming of Morph Groups .
Variations	Instant recall of 8 Variations per Patch via 8 dedicated buttons.
Microphone Level	Mic Level trim and meter for adjusting the microphone signal.

CONNECTIONS

MIDI	In, Out and Thru.
Audio Inputs	- 4 analog audio inputs, line-level, 24-bit ADCs, 96 kHz sampling rate - 1 XLR mic.input with built in preamp (Engine has no XLR input).
Audio Outputs	- 4 configurable outputs, line-level, 24-bit DACs, 96 kHz sampling rate. - 1 Headphones output.
Editor Communication	USB 1.1 port.
External Controllers	- 1 Control Pedal jack. - 1 Sustain Pedal jack. (Engine has no pedal jacks)
Power Supply	Built in power supply. Connect with enclosed standard AC-cord.

PHYSICAL DATA

Models	G2 (3 octaves)	G2X (5 octaves)	Engine (1U, 19" rack)
Dimensions (WxDxH mm)	(all measures include knobs, screws, contacts and rubber feet) 665 x 284 x 104	1007 x 294 x 104	437 x 120 x 44
Dimensions (WxDxH inch)	26.2" x 11.2" x 4.1"	39.6" x 11.6" x 4.1"	17.3" x 4.7" x 1.8"
Weight	5.1 kg, 11.24 lbs.	8.2 kg, 18.07 lbs.	1.9 kg, 4.19 lbs.

WHAT'S IN THE BOX?

All Models	- 1 USB cable. - 1 Power cable. - CD Rom with software and sound libraries. - Printed manual with more than 200 pages.
G2X	Shipped with an additional gooseneck microphone and a built in voice expansion.
Engine	Rack mountable with supplied rack ears.

ACCESSORIES

Voice Expansion	G2 and Engine can be expanded to the same power as the G2X with a voice expansion board (part no. 10280).
Soft Case	G2 and G2X perfect fit custom designed soft cases (part no. 10320 resp. 10138).

SOFTWARE UPGRADE POLICY

Clavia offers every G2 customer free upgrades for both the editor software and the synthesizer's operating system as well as free access to future sound libraries.

Specifications subject to change without notice.



MADE IN SWEDEN BY CLAVIA DMI AB
Box 4214, SE-102 65 Stockholm, Sweden
Phone: +46 8 442 73 60, Fax: +46 8 644 26 50
Email: info@clavia.se www.clavia.se