Plugin Manual



Developed by Brainworx Audio in partnership with Knif Audio and distributed by Plugin Alliance.











The Knifonium is a 26 tube monophonic synthesizer with two oscillators, a 4th order ladder filter, and a ring modulator. It is handcrafted in small batches by Jonte Knif with a devoted sense for detail. But the Knifonium is not just eye-candy or capable of "making weird noises". It is a very musical and inspiring instrument with many possibilities for modulating and shaping sound.

The Knifonium is a very carefully designed synth for many purposes and no-one sums it up better than Jonte: "It sounds like nothing else."

In an in-depth process, we have modelled the complete circuits including all 26 tubes applying our Tolerance Modelling Technology (TMT). TMT introduces the variations caused by tolerances in electrical components to the software reproduction of a synthesizer, allowing for the slight variations in envelope parameters, pitch, LFO speed, and many other characteristics.

Adding 8 independent voices to the plugin version opens a new universe of possibilities.

Since we have a huge, well-proven arsenal of effects and effect algorithms, we decided to add miniature versions of some of the best sounding ones to Knifonium, giving you a range of effects you will actually want to use.



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VCO 1 & 2

① Octave

Sets the VCO's octave in terms of organ stop. 8' equals native pitch, 4' =one octave above, 16' = 1 octave below etc.

2 Type

Sets the VCO's oscillator type. The pulse oscillator is available on VCO1 only.

3 Pulse Width (VCO 1 only)

Sets the pulse width of the pulse oscillator.

O Pulse Width Modulation Source (VCO 1 only)

Switches the modulation source for the pulse width.

5 Coarse Tune

Sets the VCO's coarse tuning in semitones.

6 Fine Tune

Sets the VCO's fine-tuning in cents.



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① Keyboard (KB)

Switches if the VCO's pitch is influenced by the keyboard's CV. If set to off, the keyboard's CV is ignored and the pitch is determined by the tune parameters and modulations only. The keyboard's Gate output is not changed by this parameter and will still influence the VCO per the envelope settings.

The plugin is referenced to the global tune A4 (default 440 Hz) with Octave set to 8'. Coarse Tune and Fine Tune set to 0.

However, the KB tracking is referenced to the note C3 like in the hardware.

2 Mod Amount

Sets the general amount of modulation that is applied to the VCO's pitch. This needs to be set above 0 to enable S&H pitch modulation.

Mod Source Env1

Switches how the CV of envelope 1 influences the VCO's pitch.

- +: a positive Env1 CV raises the pitch
- -: a positive Env1 CV lowers the pitch

Off: the Env1 CV does not modulate the pitch

4 Mod Source LFO

Switches how the CV output of the LFO influences the VCO's pitch.

- +: a positive LFO voltage raises the pitch
- -: a positive LFO voltage lowers the pitch

Off: the LFO voltage does not modulate the pitch



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Mod Source Aftertouch

Switches how the aftertouch intensity influences the VCO's pitch.

- +: a higher aftertouch intensity raises the pitch
- -: a higher aftertouch intensity lowers the pitch

Off: aftertouch does not modulate the pitch

2 Mod Source Ext1

Switches how the external signal Ext 1 influences the VCO's pitch.

- +: a higher ext signal raises the pitch
- -: a higher ext signal lowers the pitch

Off: ext signal does not modulate the pitch

Spread

A plugin-only feature, this adjusts the stereo width of each oscillator separately.

A handy feature to add width to your sounds.

0 Osc Sync (On/Off)

Switches oscillator sync on or off. VCO 2 is the master, VCO 1 is the slave oscillator.

5 Sync Mod Source

Switches the modulation source for the sync.

If set to AT or MW, a certain Aftertouch resp. Mod Wheel threshold must be exceeded to engage the sync.



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1 FM Mod

Switches frequency modulation (FM) on or off. If engaged, the sine output of VCO 2 (Master) modulates the pitch of VCO 1 (Slave). The amount of modulation can be set via the FM Level parameter.

2 FM Level

Sets the amount of frequency modulation (FM). VCO 1 pitch is always modulated by the sine output of VCO 2 independent of the selected VCO 2 waveform and VCO 2's level in the mixer section.

This only has an effect if FM Mod is engaged.



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Osc MIXER

1 VCO 1

Sets the VCO 1 output level.

The mixer stage is tube-based and depending on the overall input level(s), it can slightly saturate or even distort the signal. We modelled this interactive behaviour according to the hardware unit, thus giving it a non-linear type character.

Tip: Dial back VCO1, VCO2, Noise, RingMod to get an overall cleaner sound whilst raising level via the Master Vol. output.

2 VCO 2

Sets the VCO 2 output level.

3 VCO 2 Mod Source

Switches the modulation source for the VCO 2 output level. Mod source can be Mod Wheel, Aftertouch or disengaged (Off).

Moise

Sets the noise generator output level. An Excellent tool for percussive sounds, layering etc.



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Noise Mod Source

Switches the modulation source for the noise generator output level.

Mod source can be Mod Wheel, Aftertouch or disengaged (Off).

2 Noise Type

Select between White, Pink, and Red noise.

3 Ring Mod

Sets the ring modulation output level.

There will be no audible output if Drive Vols or Ring Mod Level are set to 0.

Ring Mod Mod Source

Switches the modulation source for the ring mod output level.

Mod source can be Mod Wheel, Aftertouch or disengaged (Off).



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Ext CV

1 Ext 1

Sets scaling of the external sidechain signal.

The full scale side chain signal (the digital range -1 to +1) will be scaled up to -10 to +10 volts.

2 Ext 2

Sets scaling of the external sidechain signal.

The full scale side chain signal (the digital range -1 to +1) will be scaled up to -10 to +10 volts.

Tip: Make sure you have the volume turned down on your monitors or headphones for this example.

Load the Knifonium in its default state on an instrument track. Create another track and add another synth modulating a Sine tone. Try the lowest octave possible for this example (inaudible, please be careful with your volume here), select the sidechain in on the Knifonium track and route the tracks.

Next, go to VCO 1 and switch the Ext 1 parameter to '+'. Increase the VCO 1 'Mod Amount'1 to 10. Now slowly turn up Ext 1 under the Ext CV section.

Now you should start hearing the external input modulating the OSC. You can also increase the second synth's frequency (in other words go up higher) and see how this changes the character of the Knifonium to FM like sounds. You can then start combining Ext 2 and route it to OSC 2 or VCF with LFO etc.

The key is to experiment and try different sound sources for your input as well.



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LF0

Type

Sets the LF0 type.

Available waveforms are Triangle, Pulse and Sine. The forms can be further modified via the Symmetry parameter. For example, the Triangle can be morphed between a sawtooth, triangle and falling ramp.

2 Speed Coarse

Switches the LFO speed by a factor of approx. 10 per step.

In sync mode: 4/1, 2/1, 1/1, 1/2, 1/4, 1/8, 1/16, 1/32

3 Speed Fine

Sets the LFO speed in combination with the Speed Coarse parameter.

Given frequencies are approximate values.

Slow: 0.2 Hz to 3.5 Hz

Medium: 2 Hz to 35 Hz

Fast: 20 Hz to 350 Hz

Speed Fine Mod

Switches the modulation of the LFO speed on or off. If engaged, it can be modulated by the Mod Wheel.

Mod Wheel Dest must be set to "LFO Gain" to enable the modulation.



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1 Keyboard Trigger

Switches if the LFO is retriggered by every keyboard (gate) signal or if it works in free-running mode. In Single mode, only the LFO on the voice which triggered a new gate signal will be reset. In All mode, all LFOs on all voices will be reset by every new gate signal, no matter which voice triggered the gate. This function differs from the hardware as the hardware is only monophonic.

2 Symmetry

Sets the symmetry of the LFO waveforms. This changes durations of the first and second half of the waveform, e.g. for a pulse wave this is equal to changing the pulse width.

3 Amplitude

Sets the LFO amplitude. The maximum peak to peak value is 5 Volts.

4 Amplitude Mod

Switches modulation of the LFO amplitude on or off. If engaged, it can be modulated by the Mod Wheel. Mod Wheel Dest must be set to "LFO G" to enable the modulation.



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Offset

Adds an additional offset to the LFO CV output. This can be used to switch the LFO output from symmetric to asymmetric behaviour.

- +: A positive 2.5V offset is applied to the LFO output. It ranges from approx. 0 to +5 volts.
- **+/-:** No offset is applied. The LFO output is symmetrical. It ranges from approx. -2.5 to +2.5 volts.
- -: A negative 2.5V offset is applied to the LFO output. It ranges from approx. -5 to 0 volts.



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VCF

Frequency

Sets the VCF's cutoff frequency. The output filter is a low pass 4th order ladder filter.

Keyboard Tracking

Determines how much the cutoff frequency is varied by the keyboard's CV.

Resonance

Sets the VCF's resonance.

The filter will self-oscillate with higher resonance settings.

4 M/S

Turning the M/S knob all the way to the left sends the mid signal (M) completely through the filter, while the side signal (S) bypasses the filter completely.

Turning the knob clockwise from this position gradually sends more side signal through the filter and bypasses less.

In the 12 o'clock position the entire M and S signals pass through the filter as they would with a regular (non-M/S) VCF. This is the default setting.

Moving clockwise from the 12 o'clock position will gradually send less mid signal through the filter and more mid signal will bypass the filter.

When dialled all the way to the right, the mid signal will completely bypass the filter, while the side signal passes through it 100%.

Tip: To get the full effect of the side signal you should adjust the 'spread' parameters under each oscillator.



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Mod f Amount

Sets the general amount of modulation that is applied to the VCF's cutoff frequency.

2 Mod Source Env 1

Switches how the CV of envelope 1 influences the VCF's cutoff frequency.

- +: a positive Env1 CV raises the cutoff frequency
- -: a positive Env1 CV lowers the cutoff frequency

Off: the Env1 CV does not modulate the cutoff frequency

3 Mod Source LFO

Switches how the CV output of the LFO influences the VCF's cutoff frequency.

- +: a positive LFO voltage raises the cutoff frequency
- -: a positive LFO voltage lowers the cutoff frequency

Off: the LFO voltage does not modulate the cutoff frequency

4 Mod Source AT

Switches how the aftertouch intensity influences the VCF's cutoff frequency.

- +: a higher aftertouch intensity raises the cutoff frequency
- -: a higher aftertouch intensity lowers the cutoff frequency

Off: aftertouch does not modulate the cutoff frequency



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1 Mod Source Ext 1

Switches how the ext 1 voltage influences the VCF's cutoff frequency.

- +: a higher ext 1 voltage raises the cutoff frequency
- -: a higher ext 1 voltage lowers the cutoff frequency

Off: ext 1 voltage does not modulate the cutoff frequency

2 Mod Source Ext 2

Switches how the ext 2 voltage influences the VCF's cutoff frequency.

- +: a higher ext 2 voltage raises the cutoff frequency
- -: a higher ext 2 voltage lowers the cutoff frequency

Off: ext 2 voltage does not modulate the cutoff frequency

3 Frequency Scaling

This changes the filter cutoff range that is available via the VCF Frequency knob.

Frequency Tuning

This adds an offset to the filter cutoff calculation.



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Envelope 1 & 2 (VCA)

1 Trigger

Selects the gate trigger.

2 Attack

Sets the attack time.

3 Decay

Sets the decay time.

Sustain

Sets the sustain level.

6 Release

Sets the release time.



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Velocity

Selects how and if the keyboard velocity changes the envelope's amplitude.

Tip: Velocity scales the envelope's amplitude and only Env2 is the VCA envelope that will control the output volume. Env1 is a mod envelope and its Velocity will act as a mod amount scaling but not changing the output volume.

On: Velocity is applied to the amplitude/volume

1/2: Lowers the velocity's dynamic range. Low velocities will be raised, high velocities will be lowered.

Off: All key presses are played with full velocity

2 Gate Open

If engaged, the gate is always opened; no matter if any trigger is active or not.

3 Time x5

If engaged, all envelope timing constants (ADR) are multiplied by a factor of approx. 5.



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Ring Mod

1 Drive Vols

Sets the input drive of both signal sources - input and carrier.

There will be no audible output if Drive Vols or Ring Mod Level are set to 0.

2 Input

Switches the input signal source for the ring modulation.

3 Carrier

Switches the carrier signal source for the ring modulation.



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Output

Master Volume

Sets the master volume.

Tip: By increasing the 'Master Vol' parameter you can add more harmonics/ dirt/saturation to your sounds as this is 'driving' the output amp (see 4. Amp Mode). If you would like to increase or decrease the volume without adding any character you can use the 'Output' parameter found at the right corner of the toolbar.

2 LFO to VCA

If engaged, LFO output controls the VCA. The LFO signal is summed with the other VCA control voltages (Env 2, AT, Feedback).

3 VCA Mode

Boost mode gives a gain staging option for the VCA tube stage. When boost is engaged, the audio signal is boosted by 12 dB at the VCA input and attenuated by 12 dB at the VCA output.

4 Amp Mode

Selects one of three output amp tube modes: Triode, Pentode, Saturated. Experiment with these different modes to change the colour of a sound.



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Glide & Keyboard

1 Glide

Sets the time constant to glide from the currently played note to the next. By increasing this parameter glides will take longer to reach the desired key.

2 Mode

Sets the glide (portamento) mode.

On: Glide active

Auto: legato glide, glide is only applied when playing legato.

Off: Glide inactive

Glide is only usable in mono mode (1 voice or Unison engaged).

3 Glide Dest Osc 1

Selects if glide is applied to VCO 1.

4 Glide Dest Osc 2

Selects if glide is applied to VCO 2.

5 Transpose

Transposes the pitch in a range between -2 and +2 octaves.

The transpose also affects a VCO's pitch if its Keyboard parameter is set to off.

The transpose also influences KB tracking parameters (like the Pulse Width Modulation via KB).



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Pitch Bend & Mod Wheel

Pitchbend

Sets the maximum pitch offset that can be achieved via Pitchbend in semitones. If set to A, an adjustable offset range can be set via the Pitchbend Adjust trim screw.

2 Osc 1

Selects if the Pitchbend should modulate VCO 1's pitch.

3 Osc 2

Selects if the Pitchbend should modulate VCO 2's pitch.

O Pitchbend Adjust

Sets the pitch offset for the adjustable mode. The maximum range is 2 semitones (200 cents)

5 MW Scale

Sets the scaling of the Mod Wheel.

MW Dest

Sets the destination that is modulated by the Mod Wheel.

Independent of this setting, the Mod Wheel can modulate the following parameters when selecting it as a modulation source:

VCO 2 Level, Ring Mod Level, Noise Level, Osc Sync.



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Sample & Hold

Source

Sets the input source that should be sampled.

2 Trigger

Sets the trigger input that determines when to capture a new sample.

3 Destination

Sets the destination to which the held sample is applied.

O Pitch Quantization

A plugin-only feature, when active and S&H destination is set to pitch, the S&H output is quantized to semitone steps.

5 Multi-Mode

Another plugin-only feature.

Multi: a different sample is produced for each voice.

Single: the same sample is used for all voices.



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OPT

1 Voice (Voice Handling)

A plugin-only feature, this parameter sets the number of voices that can be played simultaneously.

2 Unison

Engages or disengages unison mode.

3 TMT

A plugin-only feature, this parameter activates or deactivates the TMT feature.

TMT

Analyzing every tube and its tolerances.

Originally found in the bx_console line of plugins. It takes the real-world tolerances of audio components found in audio circuits into account and offers voices of the synthesizer which have realistic variances in frequency, time constants, etc. The result is a digital synthesizer that sounds as analogue as possible.

When enabling TMT and playing multiple voices together (either polyphonically or with unison mode enabled) these slightly differing voices generate a rich, colourful and vivid sound that other synthesizer plugins are just not capable of (re)producing.

You can disable these variations and the resulting effects by merely disabling TMT with a flick of the switch.



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1 Velocity Mode

When playing polyphonically with legato notes, this sets if every new note uses its own velocity (Multi) or if all notes use the same velocity as the first note (Single).

After releasing all keys, the first new note will set the velocity in Single mode.

After Touch Dest

The (Midi) Aftertouch is converted into two different continuous values. This is modelled on HW circuits. One is an Aftertouch voltage (from around 0 to +5 Volts), the other is a control voltage for optocouplers.

Velocity Mode AT Amount

Sets the amount of modulation that is applied to AT modulated destinations.

3 Ring Carrier

If engaged, aftertouch modulates the ring mod carrier's (amount of drive) which will result in a more extreme or more subtle ring mod effect.

O VCA Gain

If engaged, aftertouch modulates the VCA gain.

5 VCF Res

If engaged, aftertouch modulates the VCF resonance.



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1 External In

If engaged, aftertouch as a modulation source is replaced by the external input (Ext 1).

2 Pulse Width

If engaged, aftertouch modulates the pulse width.

3 Quantize

With Quantize engaged, there are two thresholds in the pressure sensitivity detection. The voltages can then only have 3 discrete values (Off, Low, High). The direct AT voltage can now only be 0V, +2.5V, +5.0V with TMT engaged these values will change slightly.



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Arpeggiator

The Arpeggiator can be switched on and off via the power symbol.

1 Arp Mode

The Modes are: As Played, Up, Down, Up & Down (without repeating the last note), Up & Down (repeating the last note), Down & Up (without repeat), Down & Up (with repeat), Chord and Random.

Octave

Select Octaves relative to the keys that are pressed. If more than one octave is selected, all selected octaves are played before repeating the pattern. Note that at least one setting has to be active.

3 Trigger

Legato: adding or releasing a note will not retrigger the Arpeggiator, while other notes are still held down. Every Note: adding or releasing a note will always retrigger the Arpeggiator.

Hold: When enabled, all notes are held active – even after you release a key. In this way, more and more notes are added if you keep playing.

Note: when Arp is active you can use a sustain pedal for the 'hold' function as well. Pressing down holds the arp, releasing the pedal will turn off the 'hold' function.



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1 Clock

Divider: Selects the speed of the arpeggiator relative to the tempo in your host.

Includes triplets (T) and dotted notes (D).

Swing: Adjustable swing factor for the Arpeggiator.

Panning

2 Arp Stereo Panning

Activates or deactivates the Stereo Panning mode.

Stereo Panning is only active when the arpeggiator is engaged.

3 Arp Stereo Panning Mode

Sets the order in which the audio gets panned.

L > R: left to right

L < R: right to left

L / R: alternating hard-panned left/right, starting on the left.

 $\textbf{Increasing:} \ goes \ from \ the \ centre \ to \ hard \ panning \ while \ alternating \ left \ and \ right$

Random: panning is determined randomly



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Arp Stereo Panning Steps

Sets how many equidistant steps the panorama is divided into.

For example, with 16 steps, the panorama is divided into 16 16th, linearly spread across the whole panorama. With 11 steps, the panorama is divided into 11 11th, linearly spread across the whole panorama etc.

When Intensity is set to 100% 3 steps gives you hard left, centre, hard right, 16 steps give you 8 positions left of centre and 8 positions right of centre symmetrically.

2 Arp Stereo Panning Intensity

Sets the cone of the panorama.

100% means that the panning cone ranges from 100% left to 100% right, 30% means that the panning cone ranges from 30% left to 30% right etc.



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FX Section

Having a huge portfolio of different audio processors, we decided to give you smaller versions of some of the best of these effects.

The effects section can be globally enabled and disabled by clicking the power button next to "FX".

Please note that this will bypass all effects regardless of their individual state and that this is not saved within a preset. In other words, by disabling the effects section, it will stay disabled even when you browse presets. This can help you in case you want to use an external chain of effects.

The signal flow through the effects section is left to right and the order of the effects is variable. By simply clicking the effect name and dragging it into a different spot, you can alter the signal flow to your liking.

1 Digital Delay

Modelled after a classic bucket-brigade delay, this is a rich addition to your sound. You can sync the delay to your host if desired, this setting ranges from 1/32 to 2/1 including triplets (T) and dotted notes (D). The filter is a low pass when the knob is turned counter-clockwise from the centre position and a high pass when turned clockwise. You can choose between ping-pong style delay or a regular delay.

2 Mäag AIR BAND®

The iconic filter found in products as the Mäag EQ2, EQ4 or the MAGNUM-K compressor can help you add some extra Air into your sound.

Frequency: 2.5kHz, 5kHz, 10kHz, 15kHz, 20kHz, 40kHz



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1 Reverb

A classic reverb offering you anything from bathroom to cathedral.

Play around with room size and feedback to find the amount of reverb which fits your sound. The Damping parameter allows you to dial in harsh, cold sounds as well as soft and lush ambiences. The hold function will keep the current reverb level for an almost infinite time. This allows for creating huge ambiences.

Make sure you activate the hold function at the moment you want to freeze the reverb state (not before you play). It is probably helpful to assign the hold function to a MIDI input like a button or pedal.

2 Flanger

Modelled after the sound of classic Flanger pedals, this gives the Knifonium an additional set of possibilities.

Speed can be dialled in both synchronized with your host tempo and free running. Enhance deepens the effect of the flanger.

3 Blue Chorus

Another Brainworx classic giving you the typical sound of a chorus stompbox.

4 Metal666

Don't let the subtle nature of this amp simulation fool you. It may start gently when Gain and Out are dialled in low, but the beast will be unleashed the further you turn both knobs towards 11 (or 10).

If you turn up both Gain and Out to give your sound that extra growl, please make sure you reduce the level in the main UI in order to avoid overloading your channel.



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1 Phaser

A model of the world's most popular phaser pedal with its iconic 4-stage phasing sound, as well as it's 2-stage predecessor and an additional plugin-only 6-stage mode for more intense modulation.

The mode displayed is the current pedal in selection.

Attention: The Mono mode will give a more intense modulation effect, but will destroy the stereo width of the signal. This is best used for monophonic lead sounds where no Stereo information is being processed. The output on the left and right will be the same when using mono mode.

2 SPL EQ Ranger

Quick and intuitive frequency treatment. Add that SPL flavour to your synthesis by easily tweaking and dialling in more character.



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1 Wavefolder

1. Folds

Sets the amount of wavefolding and thus generated harmonics. The amount of generated harmonics is also highly dependent on the input level. If the folded signal is still too clean with high fold values, try to raise the input level (e.g. Knifonium's master volume or oscillator levels). If the folded signal is too distorted at a very low fold value already, try to lower the input level.

2. Mode

The module contains two different wavefolding processors which can be mixed via the Mode knob. Turning the knob fully counter-clockwise selects the "sine" wavefolding. Turning the knob fully clockwise selects a "sinc" based wavefolding. Using the sinc mode with a low input signal and/or low Folds setting can achieve a kind of "gated" signal.

3. Frequency

Sets the cutoff frequency of the output filter.

4. Resonance

Sets the resonance of the output filter.



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Preset Management

The Knifonium preset management system is a file-based system. You can import and export presets as a single file per preset. This allows for easy exchange of presets between users.

1 Preset Menu

The Preset Menu allows you to filter by Types, Subtypes, Modes, Authors and Banks. The Results column always shows you the list of matching presets for your selection. Use the "Show Thumbs Up" button to only show your favourites. The column on the right-hand side shows you all the details of the selected preset at a glance. You can also quickly make changes to the preset details in this column.

2 Preset Dropdown

The preset dropdown menu shows you several menu items. Each item holds a list of presets filtered by specific criteria. The "Current Filter" category lists all presets matching the criteria set in the Preset Browser. On the right beside the menu is the "Thumbs Up" icon, which indicates your favourites. You can toggle "favourite" status by clicking on the icon. Next to this are up/down arrows for quickly jumping to the next preset in the category list you have chosen. So, if you, for example, choose a preset in the "Bass" category, the up/down arrows jump from one preset in this category to the next.



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Save / Overwrite Preset

Clicking on this button allows you to choose between overwriting or saving the current preset as a new preset. Saving a new preset opens a dialogue giving you the possibility to fill in fields like author, type, bank etc.

Please Note: It is possible to overwrite factory presets.

2 Preset Auto player

The Auto player allows you to set a number of bars and when you hit play, it uses each preset for the number of bars selected and then jumps to the next preset in the current category list. So, if you are looking for a nice pad, dial in the number of bars you would like to hear, select a pad from the "Synth Pad" category and hit play. This will jump from one pad to the next allowing you to audition presets without having to leave the keyboard. Use a matching loop in your DAW to audition presets in context automatically.

Search

Start typing and your results will immediately be filtered. The search goes across all fields (Types, Author, Bank,...), not only the preset names. This makes it a very powerful function for finding presets quickly.



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Parameter Locking

By right-clicking any parameter on the Knifonium it can be toggled into a locked state. This is displayed using a lock symbol for the chosen parameter.

Once locked, a parameter will remain set even throughout preset changes.

So, once you have found a nice setting for a section of the synth you can lock it and browse the presets without changing this section. This will give you many new ideas for sounds and opens endless possibilities.

NKS compatibility

Knifonium is fully NKS compatible.

Internally, Knifonium uses the papreset format which is similar, but not exactly the same as the NKS file format. This is why presets need to be converted to be used in the other format. The Factory bank is already available for both preset systems. If you want to convert your own presets (or altered factory presets), just use the Export NKSF/Import NKSF functions found in the Preset Browser in the File menu.



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MIDI Learn

MIDI Learn Mode

By clicking on the MIDI Learn mode button in the top right corner, you can assign CC messages from your hardware controller to Knifonium's controls. In this mode, a colour overlay on each assignable control shows its MIDI assignment status. Unassigned controls are coloured in blue, assigned controls are coloured in green and the currently selected control is coloured in grey. Clicking the MIDI Learn button again switches off the MIDI Learn mode.

MIDI mappings can be stored in two ways. They are saved within a preset and can additionally be saved as a file.

2 Assigning

To assign a MIDI CC to a control, select the control by clicking it. A small overlay window showing the parameter name appears. The next received CC message will be assigned to this control. The CC number is displayed below the parameter name together with a trashcan icon. Clicking on the trashcan icon will unassign the CC from the selected control. When you select another control, the control you just assigned will be shown in green, so you don't lose track of your assignments.



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Resetting

Besides the trashcan icon, you can use the "Reset" button at the top of the synth GUI to unassign all midi CCs in one click.

2 Reading

Use the "Read" button to load a previously saved controller assignment.

Storing

You can use the "Store" button to save the controller assignment in an .xml file. This is particularly useful if you use different hardware controllers, or if your controller has a limited set of knobs and faders and you want to focus on different parameters of the Knifonium in different scenarios.

In addition to saving a mapping as a file, they are always saved within a preset.



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Top Toolbar

1 Foldout

The foldout button extends or retracts the additional sections like Effects, Modulation and Arpeggiator.

2 Undo/Redo

You can undo and redo changes you made to the controls of the Knifonium plugin at any time. The Undo / Redo will work for as many as 32 steps. This makes experimenting and tweaking knobs easy. If you don't like what you did... just undo it.

3 Global Tune

Adjust the global tuning of the Knifonium. The shown frequency corresponds to the note A4. Use this to adjust the tuning of the Knifonium to match other instruments.

Panic

Clicking this button will immediately silence the Knifonium and turn all notes off.



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A word on CPU usage

We have modelled the electronic circuit boards and tubes in a way which makes the Knifonium a very accurate reproduction of the hardware version. The technology we use to enable us to reach this level of accuracy produces what we think is the most "analogue" sound which can be achieved using a plugin. This is vastly different from other technologies like sampling.

This is why a plugin like the Knifonium (and any plugin aiming at a faithful reproduction) will need hardware resources (CPU, Memory). We have made sure that any somewhat modern hardware is able to run several instances of Knifonium. If you run into resource problems, we recommend you lower the voice count. And in case you are running at more than 48kHz sample rate, consider lowering it to 48kHz or 44.1kHz.

Voice Handling

As with the hardware, when playing one voice the highest note will always take priority. When adding more voices priority will be given to the note following.



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Preset Credits

- Zardonic www.zardonic.net
- The Glitch Mob www.theglitchmob.com
- Lostly www.lostlymusic.com
- Faux Tales www.fauxtales.com
- Ramon Zenker
- John "Skippy" Lehmkuhl Pluginguru.com
- Laurent "Airwave" Véronnez Pluginguru.com
- Harald Aufmuth
- UGLY DRUMS
- Daniel Rabe
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