

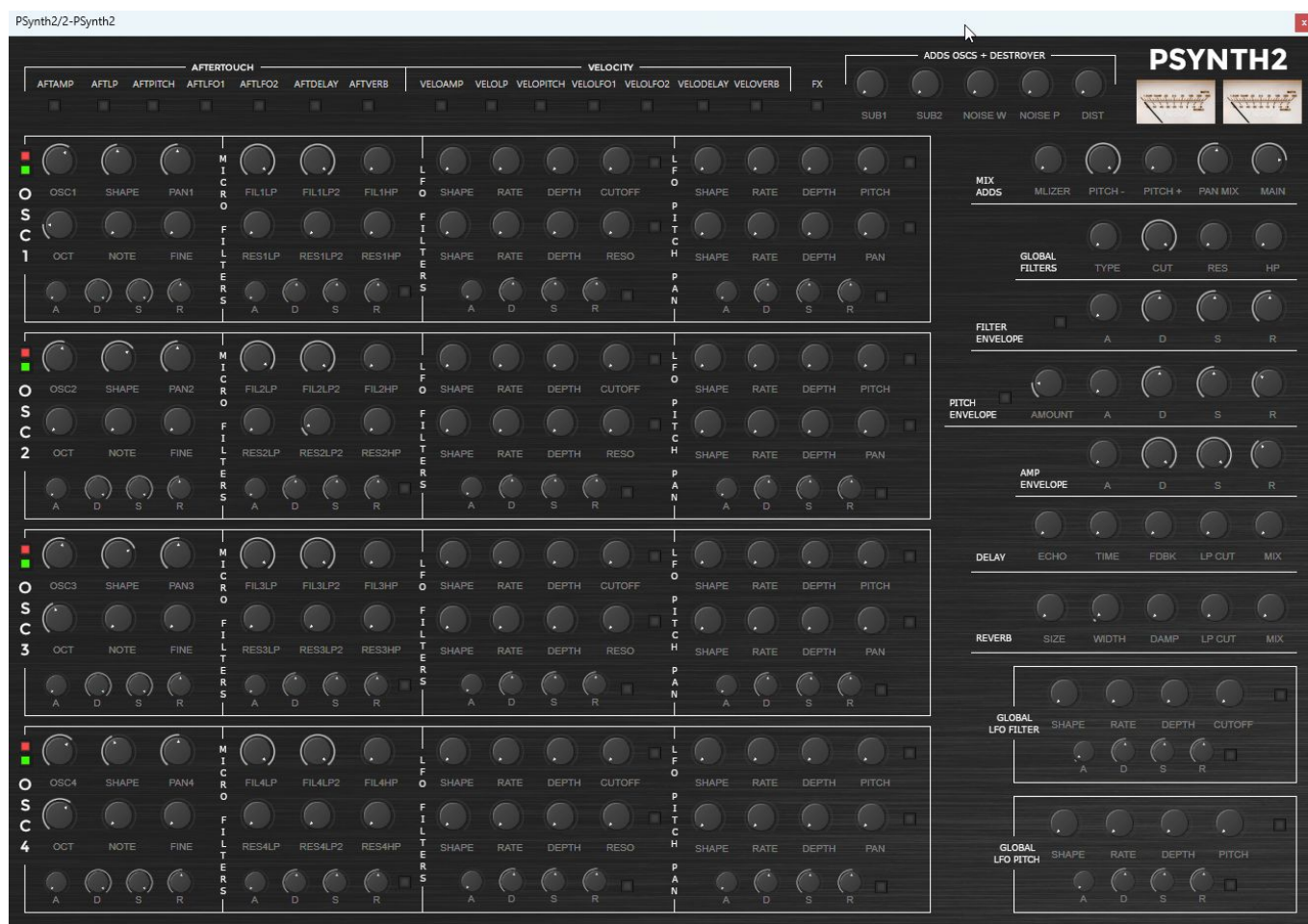
PSynth2

User manual

2.45 · Home Records Label

English edition · Windows x64 · VST3

This manual takes you from first launch to making your own sounds. It explains the panel controls, their dependencies, MIDI performance controls and saving settings in your music host. Control labels match the interface so you can find each function on screen.



Panel screenshot · Ableton Live

This manual covers version 2.45. Screenshots show the running plugin in Ableton Live. Knob positions illustrate a panel state and are not required starting settings.

Contents

Installation and first launch	3
Panel operation and MIDI control	4
Synthesis and envelope basics	5
OSC1-OSC4: sound sources	6
Local amplitude envelopes	7
MICRO FILTERS and local filter envelopes	8
LFO FILTERS: cutoff modulation	9
LFO FILTERS: resonance modulation	10
LFO PITCH: pitch and envelope	11
LFO PAN: stereo movement	12
ADDS OSCS + DESTROYER	13
AFTERTOUCHE: pressure expression	14
VELOCITY: playing-strength expression	15
MIX/ADDS, PAN MIX, DIST and FX	16
GLB FILTERS: global filters	17
FILTER ENVELOPE: global filter envelope	18
PITCH ENVELOPE and shared pitch	19
AMP ENVELOPE: global envelope	20
DELAY: repeats	21
REVERB: space	22
GLOBAL LFO FILTER	23
GLOBAL LFO PITCH	24
MIDI and parameters outside the panel	25
DAW automation names	26
Sound design examples	27
Troubleshooting	28
Version and documentation scope	29

Installation and first launch

You need Windows with x64 application support and a 64-bit DAW that supports VST3. PSynth2 runs as an instrument inside a host. The installer shortcuts in the Start menu provide information, component notices and the uninstaller.

Close your DAW before installing or updating. Run PSynth2Setup.exe. Choose a language and destination folder. The usual path is C:\Program Files\Common Files\VST3\PSynth2.vst3. An update may propose the previous location. The final destination should end with PSynth2.vst3.

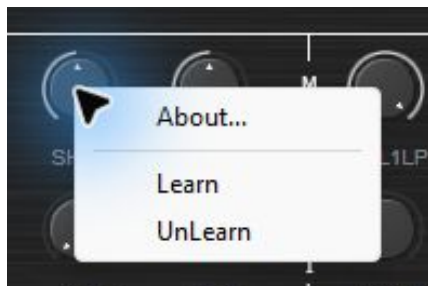
Setup copies the complete plugin bundle, including Resources and its modules. NI Resources integration artwork is installed in the shared Windows Documents folder. Do not move only the inner binary without the rest of the bundle.

Open your DAW after installation and rescan VST3 plugins if needed. Add PSynth2 to an instrument or MIDI track. In Ableton Live, open Plug-ins, find Home Records Label and drag the instrument onto a MIDI track.

Select a MIDI input and enable track monitoring. Play a MIDI keyboard or a clip containing notes. Check MIDI activity, the plugin meters, track meters and your DAW audio output. If there is no sound, see Troubleshooting.

Close the host before updating or uninstalling. Use the Start menu uninstaller or Windows app settings. Save your own projects and sounds before an update.

Panel operation and MIDI control



SHAPE knob menu in PSynth 2

Adjust knobs by dragging with the mouse and watch the value in your host. Square buttons switch functions between ON and OFF; their meaning is explained with each section. SHAPE or WAVE selects a waveform, while OCTAVE or OCT and NOTE select discrete tuning positions.

Modulation needs a source, depth and an active route to its destination. If an LFO has no audible effect, check DEPTH, the destination amount and the relevant switches. ADSR attack and decay run after a note begins; release starts when the note ends.

The knob context menu contains About..., Learn and UnLearn. To assign a MIDI controller, right-click a knob, choose Learn and move the controller you want to use. UnLearn removes the assignment. The PSynth 2 menu was checked on the running panel; both bundles use PatchMemory controls.

Velocity is supplied at the start of a note and represents how hard it is played. Aftertouch is pressure sent after the note begins. Enabling a route does not generate aftertouch: your keyboard or MIDI clip must supply it. Do not assume MPE or independent pressure control for each note.

Pitch bend and the sustain pedal are separate MIDI messages. A held pedal can keep notes active after the keys are released, delaying the envelope release stage. Relevant host and instrument settings are also described in the MIDI parameter sections.

Save the DAW project after editing. The panel has no visible dedicated preset browser. Use the host's mechanisms to save and recall sounds. After reopening, check the sound and switches; saving knob positions alone is not a substitute for checking the result.

DAW automation records parameter changes over time. In Ableton, use Configure on the device, move the target control, then select the exposed parameter for automation. Some PSynth 2 automation names are repeated or abbreviated, so verify which knob a parameter actually moves.

Synthesis and envelope basics

Oscillator Generates a waveform at a pitch set by the note. Mixing, tuning and filtering oscillators shapes the tone. A sine is smooth; saw and pulse waves offer more upper harmonics for filtering.

Sine A sine wave is useful for a clean tone and low end. A low-pass filter changes its tone less dramatically than a saw wave.

Saw / Ramp A sawtooth contains many harmonics. Saw and Ramp in PSynth are opposite sawtooth directions. PSynth 2 offers one Saw position.

Triangle / Tri A triangle is smoother than a saw or pulse. The PSynth 2 label is shortened to Tri.

Pulse An impulse-like waveform with a distinct tone. Selecting Pulse does not imply a visible pulse-width control or PWM modulation.

White Noise / Pink Noise Noise has no single defined pitch. White noise sounds brighter; pink noise has relatively more energy in lower ranges. PSynth also offers these in the OSC2, OSC3 and LFO waveform selection; PSynth 2 provides separate noise levels.

Cutoff and resonance Cutoff sets the filter boundary frequency; resonance emphasizes the region around it. LP reduces high frequencies, HP reduces low frequencies, BP passes a band and Band Reject removes a band. These modes are available only where a TYPE selector is documented.

A / Attack The rise after a note begins. A short attack gives a fast onset; a long attack creates a gradual fade-in.

D / Decay The move from the peak to the sustain level. A shorter decay emphasizes the initial transient and reaches the held portion sooner.

S / Sustain The level maintained while the note is held. This is a level, not a time. Setting amplitude sustain to zero makes the sound decay even while the key remains down.

R / Release The fade after a note ends. Amplitude release controls the instrument's own tail; delay and reverb tails can last longer.

LFO A slow control waveform. Pitch modulation produces vibrato, amplitude modulation produces tremolo, and filter modulation moves the tone. RATE sets speed, SHAPE or WAVE sets the waveform and DEPTH scales the modulation.

OSC1-OSC4: sound sources



Panel detail · OSC1-OSC4: sound sources

The four oscillator rows share the same set of functions. The row number identifies the oscillator: every OSC1 description also applies to OSC2, OSC3 and OSC4. Each oscillator has its own waveform, tuning, level, pan, amplitude envelope and filters.

OSC1 / OSC2 / OSC3 / OSC4 Level of the selected oscillator before its local amplitude envelope and filters. The minimum setting silences that oscillator.

ON/OFF beside OSC1 / OSC2 / OSC3 / OSC4 Enables or silences the selected oscillator. Its indicator follows this switch, so an illuminated indicator alone does not prove there is audible output.

SHAPE × 4 Selects Sine, Saw, Pulse or Tri. Sine gives a simple tone, Saw has a rich harmonic spectrum, Pulse gives a distinct pulse tone and Tri has softer high harmonics.

OCT × 4 Selects an octave offset of -2, -1, 0, +1, +2 or +3 relative to the shared incoming pitch.

NOTE × 4 Selects an offset from 0 to 11 semitones. Use it for intervals between oscillators; 0 preserves the same pitch class.

FINE × 4 Continuous pitch adjustment for the selected oscillator. A small difference between oscillators creates beating and a broader tone. The interface scale is not labelled in cents.

PAN1 / PAN2 / PAN3 / PAN4 Sets the selected oscillator's stereo position. Its LFO PAN modulation can be added to this position.

SHAPE is a knob that selects a discrete waveform. An intermediate position does not mean continuous blending between two waves.

The oscillator switches are private parameters marked to ignore program changes. Check their state after loading another preset.

Example: enable OSC1 and OSC2, select the same wave and octave, slightly adjust FINE on one oscillator and spread PAN1/PAN2.

Local amplitude envelopes



Panel detail · Local amplitude envelopes

Every OSC row has its own A/D/S/R. This envelope controls that oscillator's audio level before its filters. The global AMP ENVELOPE acts later, so both envelopes can affect the audible attack and decay.

A × 4 (OSC1-OSC4) Attack: level rise time when a note starts. A shorter setting gives a faster attack; a longer one gives a gradual entrance.

D × 4 (OSC1-OSC4) Decay: time taken to move from the envelope peak to the S level.

S × 4 (OSC1-OSC4) Sustain: level held while the note remains pressed. This is a level, not a duration.

R × 4 (OSC1-OSC4) Release: fade time after the note is released.

The four local amplitude envelopes do not have separate ON/OFF switches.

Example: choose short A/D and low S on OSC2, with a longer A and higher S on OSC1. This creates a short attack layer over a sustained tone.

MICRO FILTERS and local filter envelopes



Panel detail · MICRO FILTERS and local filter envelopes

Each oscillator has three filters in series: LP, then LP2, then HP. Each filter has separate cutoff and resonance controls. After the local filters, all four oscillators also pass through the global filter section.

FIL1LP / FIL2LP / FIL3LP / FIL4LP Cutoff of the first low-pass LP filter, based on the Moog module. Lowering the cutoff removes high-frequency content.

RES1LP / RES2LP / RES3LP / RES4LP Resonance of the first LP filter: emphasizes the region around its cutoff.

FIL1LP2 / FIL2LP2 / FIL3LP2 / FIL4LP2 Cutoff of the second low-pass LP2 filter, based on a state-variable filter. It is a further stage after LP.

RES1LP2 / RES2LP2 / RES3LP2 / RES4LP2 Resonance of the second LP2 filter.

FIL1HP / FIL2HP / FIL3HP / FIL4HP Cutoff of the high-pass HP filter. Raising the cutoff removes more low-frequency content.

RES1HP / RES2HP / RES3HP / RES4HP Resonance of the HP filter.

A × 4 (MICRO FILTERS) Local cutoff-envelope rise time.

D × 4 (MICRO FILTERS) Transition from the peak to the S level.

S × 4 (MICRO FILTERS) Level of the sustained cutoff change.

R × 4 (MICRO FILTERS) Fade of the cutoff change after the note is released.

MICRO FILTERS envelope ON/OFF × 4 Enables the local envelope contribution to the cutoff of all three filters for that oscillator. The static FILnLP/FILnLP2/FILnHP settings still apply.

In the interface labels, $n = 1, 2, 3$ or 4 . FILnLP/RESnLP, FILnLP2/RESnLP2 and FILnHP/RESnHP are three distinct pairs.

The envelope switch adds a cutoff change over time; it does not bypass the audio filters.

Example: lower FIL1LP, keep FIL1LP2 open and FIL1HP low. Gradually increase RES1LP to hear emphasis around the cutoff frequency.

LFO FILTERS: cutoff modulation



Panel detail · LFO FILTERS: cutoff modulation

Every row has a dedicated LFO that modulates the cutoff of its three filters. DEPTH sets the LFO signal, while CUTOFF and its switch set the filter contribution. A/D/S/R create an additional modulation component.

DEPTH × 4 (cutoff) Output level of the cutoff LFO signal. The minimum setting removes this modulation signal.

RATE × 4 (cutoff) Repetition rate of the cutoff LFO. A faster rate gives quicker timbral changes. The scale is not labelled in Hz or note divisions.

SHAPE × 4 (cutoff) Selects Sine, Saw, Pulse or Tri for the modulation waveform.

CUTOFF × 4 Amount of the LFO signal sent to the filter cutoffs. Works together with DEPTH.

ON/OFF beside CUTOFF × 4 Enables or disables the LFO contribution to cutoff. The audio filter remains in the signal path.

A × 4 (cutoff LFO) Rise time of the additional cutoff-LFO layer.

D × 4 (cutoff LFO) Time for this layer to move from its peak to S.

S × 4 (cutoff LFO) Sustained level of the additional layer.

R × 4 (cutoff LFO) Fade time of this layer after note release.

Cutoff LFO envelope ON/OFF × 4 Enables the additional LFO layer shaped by A/D/S/R. DEPTH, CUTOFF and the CUTOFF routing switch must still be active.

To hear modulation, raise both DEPTH and CUTOFF and enable the switch beside CUTOFF.

The A/D/S/R switch adds an envelope-shaped layer to the basic LFO modulation. Turning it off leaves the basic LFO component.

LFO FILTERS: resonance modulation



Panel detail · LFO FILTERS: resonance modulation

The second LFO FILTERS set in each row modulates resonance independently of the cutoff LFO. Its signal reaches the LP, LP2 and HP resonance controls for that oscillator.

DEPTH × 4 (resonance) Level of the resonance-LFO signal.

RATE × 4 (resonance) Rate of the resonance changes.

SHAPE × 4 (resonance) Selects Sine, Saw, Pulse or Tri for the resonance LFO.

RESO × 4 Amount of LFO applied to the three filters' resonance. It does not replace the separate RESnLP/RESnLP2/RESnHP knobs.

ON/OFF beside RESO × 4 Enables or disables resonance modulation for this row.

To hear moving resonance, choose modest DEPTH and RESO settings, then enable the switch beside RESO. Watch the output level when resonance is strong.

LFO PITCH: pitch and envelope



Panel detail · LFO PITCH: pitch and envelope

Each oscillator has its own pitch LFO. It is independent of GLOBAL LFO PITCH, which acts on the shared pitch. This set's envelope is also used by the PAN LFO in the same row.

DEPTH × 4 (pitch) Level of the local pitch-LFO signal.

RATE × 4 (pitch) Repetition rate of the local pitch LFO.

SHAPE × 4 (pitch) Selects Sine, Saw, Pulse or Tri.

PITCH × 4 Amount of local LFO added to that oscillator's pitch.

ON/OFF beside PITCH × 4 Enables or disables the local LFO routing to that oscillator's pitch.

A × 4 (pitch/pan LFO) Rise of the additional pitch/pan-LFO layer.

D × 4 (pitch/pan LFO) Transition of this layer from its peak to S.

S × 4 (pitch/pan LFO) Sustained level of the additional layer.

R × 4 (pitch/pan LFO) Fade of this layer after note release.

Pitch/pan LFO envelope ON/OFF × 4 Enables the additional envelope-shaped component for the local pitch and pan LFOs. The PITCH and PAN routing switches remain independent.

Enable the switch beside PITCH and raise DEPTH and PITCH. These are needed for audible vibrato.

The A/D/S/R switch adds an envelope-shaped component to the basic modulation. Enabling it does not remove the basic LFO.

Example: select Sine, a slow RATE and small DEPTH/PITCH settings. Large settings produce pronounced pitch movement instead of subtle vibrato.

LFO PAN: stereo movement



Panel detail · LFO PAN: stereo movement

Each row's PAN LFO modulates only that oscillator's stereo position. PANn is the static position, whereas PAN in the LFO group is the amount of movement. Its A/D/S/R envelope is shared with the local PITCH LFO.

DEPTH × 4 (pan) Scale and polarity of the PAN-LFO signal. This is a bipolar range.

RATE × 4 (pan) Rate of the pan movement.

SHAPE × 4 (pan) Selects Sine, Saw, Pulse or Tri for the stereo movement.

PAN × 4 (LFO) Amount of the LFO signal added to the static PANn setting.

ON/OFF beside PAN × 4 Enables or disables the LFO routing to that oscillator's pan.

DEPTH in this set has a reversed range from positive to negative. Its centre gives no contribution from this component; the two sides give opposite polarity.

Example: leave PAN1 near the centre, choose a slow Sine waveform and gradually introduce movement with PAN and DEPTH.

ADDS OSCS + DESTROYER



Panel detail · ADDS OSCS + DESTROYER

In addition to the four main oscillators, the instrument has two fixed SUB sources and two noise sources. Their knobs set their contribution to the mix. These extra sources run in parallel with the main filter bank.

SUB1 Level of the additional sine oscillator with a fixed downward octave offset.

SUB2 Level of the additional pulse oscillator with a fixed downward octave offset. It may appear as Knob in host automation.

NOISE W White-noise level. Useful as a rough or noisy layer.

NOISE P Pink-noise level, with more low-frequency emphasis than white noise.

SUB1/SUB2 and the noise sources bypass the local and global filters. If bass or noise remains after closing CUT or LP, check these four levels.

The word DESTROYER does not indicate a separate effect menu. DIST is located nearby and is described in the mix section.

AFTERTOUCH: pressure expression



Panel detail · AFTERTOUCH: pressure expression

The two top banks of buttons enable MIDI expression responses. VELOCITY is the note-on playing strength. AFTERTOUCH is pressure after playing a note, provided the keyboard or MIDI recording supplies the corresponding data. Each button switches its assigned path between OFF and ON; it is not a depth knob.

AFTAMP Enables or disables the contribution of aftertouch pressure on amplitude/level. OFF removes this expression path's contribution.

AFTLP Enables or disables the contribution of aftertouch pressure on cutoff of the global filter selected by TYPE. OFF removes this expression path's contribution.

AFTPITCH Enables or disables the contribution of aftertouch pressure on the shared pitch. OFF removes this expression path's contribution.

AFTLFO1 Enables or disables the contribution of aftertouch pressure on global pitch-LFO rate and depth. OFF removes this expression path's contribution.

AFTLFO2 Enables or disables the contribution of aftertouch pressure on the amount of both global LFO modulations: pitch and cutoff. OFF removes this expression path's contribution.

AFTDELAY Enables or disables the contribution of aftertouch pressure on the signal level sent to delay. OFF removes this expression path's contribution.

AFTVERB Enables or disables the contribution of aftertouch pressure on the signal level sent to reverb. OFF removes this expression path's contribution.

ON uses the contribution strength configured in the plugin. The panel offers an enable/disable switch for this path, with no separate depth knob.

The LFO1/LFO2 names in the top banks describe global expression paths. They do not refer exclusively to the OSC1 and OSC2 rows.

To check VELOCITY, compare the same note played softly and strongly. To check AFTERTOUCH, hold a note and vary the pressure.

VELOCITY: playing-strength expression



Panel detail · VELOCITY: playing-strength expression

The two top banks of buttons enable MIDI expression responses. VELOCITY is the note-on playing strength. AFTERTOUCH is pressure after playing a note, provided the keyboard or MIDI recording supplies the corresponding data. Each button switches its assigned path between OFF and ON; it is not a depth knob.

VELOAMP Enables or disables the contribution of velocity on amplitude/level. OFF removes this expression path's contribution.

VELOLP Enables or disables the contribution of velocity on cutoff of the global filter selected by TYPE. OFF removes this expression path's contribution.

VELOPITCH Enables or disables the contribution of velocity on the shared pitch. OFF removes this expression path's contribution.

VELOLFO1 Enables or disables the contribution of velocity on rate and depth of both global LFOs. OFF removes this expression path's contribution.

VELOLFO2 Enables or disables the contribution of velocity on the amount of both global LFO modulations: pitch and cutoff. OFF removes this expression path's contribution.

VELODELAY Enables or disables the contribution of velocity on the signal level sent to delay. OFF removes this expression path's contribution.

VELOVERB Enables or disables the contribution of velocity on the signal level sent to reverb. OFF removes this expression path's contribution.

ON uses the contribution strength configured in the plugin. The panel offers an enable/disable switch for this path, with no separate depth knob.

The LFO1/LFO2 names in the top banks describe global expression paths. They do not refer exclusively to the OSC1 and OSC2 rows.

To check VELOCITY, compare the same note played softly and strongly. To check AFTERTOUCH, hold a note and vary the pressure.

MIX/ADDs, PAN MIX, DIST and FX



Panel detail · MIX/ADDs, PAN MIX, DIST and FX

The final mix combines the main oscillators, extra sources, saturation processing and effects. **MAIN** sets the main level and **PAN MIX** sets the output stereo balance. Watch the meters and the DAW level when combining several layers.

MAIN Main output-mix level. Start with a modest setting when using several sources and effects.

PAN MIX Stereo balance of the output mix: changes the relative levels of its existing left and right channels. Acts more broadly than the individual PAN1-PAN4 controls.

DIST Controls Soft Distortion processing in a parallel stereo branch. Changes the shape and limit of the nonlinear curve. Compare tone and level as you adjust it.

MLIZER Controls a second stereo Soft Distortion branch. Independent of DIST, it can change both tone and level. Its automation name is MAINHIDDEN.

FX FX gain.

DIST and MLIZER control separate pairs of Soft Distortion processors, changing Shape and Limit together. They are not equalizers or verified protective limiters.

To reduce the base effect signal, minimize its MIX and turn off AFTDELAY/VELODELAY and AFTVERB/VELOVERB.

GLB FILTERS: global filters



Panel detail · GLB FILTERS: global filters

After the four main oscillators are summed, the stereo signal passes through the global filter selected with **TYPE**, then through a separate HP filter. **CUT** and **RES** apply to the **TYPE** filter. The extra **SUB** and noise sources bypass this section.

TYPE Selects Low Pass, High Pass, Band Pass or Band Reject.

CUT Base cutoff/centre frequency of the **TYPE** filter. The envelope, global cutoff LFO and MIDI expression can add modulation to it.

RES Resonance of the **TYPE** filter; emphasizes the region around its cutoff/centre frequency.

HP Cutoff of the separate global high-pass filter after the **TYPE** filter. Removes low frequencies independently of **TYPE**.

TYPE selects a mode; it is not an ON/OFF switch. The separate **FILTER ENVELOPE** switch affects only the envelope.

S in **FILTER ENVELOPE** sets the sustained cutoff contribution. It is not the audio level.

FILTER ENVELOPE: global filter envelope



Panel detail · FILTER ENVELOPE: global filter envelope

After the four main oscillators are summed, the stereo signal passes through the global filter selected with TYPE, then through a separate HP filter. CUT and RES apply to the TYPE filter. The extra SUB and noise sources bypass this section.

A (FILTER ENVELOPE) Rise of the global cutoff envelope.

D (FILTER ENVELOPE) Transition from the peak to S.

S (FILTER ENVELOPE) Level of the sustained cutoff change.

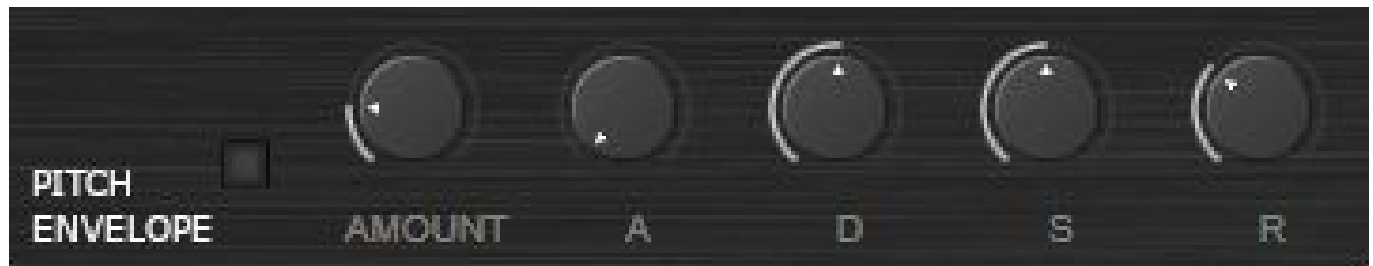
R (FILTER ENVELOPE) Fade of the cutoff change after note release.

ON/OFF (FILTER ENVELOPE) Enables the envelope contribution to TYPE-filter cutoff. Does not bypass the audio filter or the separate HP stage.

TYPE selects a mode; it is not an ON/OFF switch. The separate FILTER ENVELOPE switch affects only the envelope.

S in FILTER ENVELOPE sets the sustained cutoff contribution. It is not the audio level.

PITCH ENVELOPE and shared pitch



Panel detail · PITCH ENVELOPE and shared pitch

PITCH ENVELOPE changes the shared source pitch over time. AMOUNT scales this component. PITCH + and PITCH - provide separate positive and negative shared-pitch offsets.

A (PITCH ENVELOPE) Rise time of the pitch envelope.

D (PITCH ENVELOPE) Time for the pitch envelope to move from its peak to S.

S (PITCH ENVELOPE) Level of the sustained pitch change.

R (PITCH ENVELOPE) Fade time of the pitch change after note release.

AMOUNT Scale of the global pitch envelope.

ON/OFF (PITCH ENVELOPE) Enables or disables the envelope contribution to shared pitch.

PITCH + Positive offset of the shared incoming pitch.

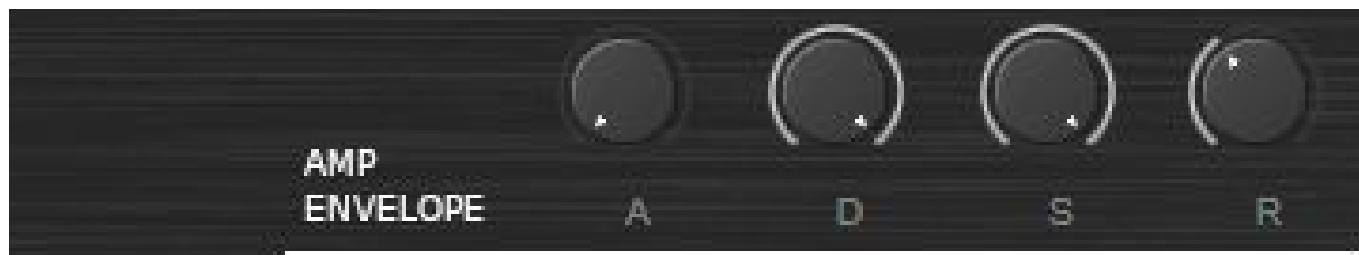
PITCH - Negative offset of the shared incoming pitch.

The envelope needs its switch enabled and a nonzero AMOUNT. PITCH +/- are independent adjustments, so they can act when the envelope is disabled.

The PITCH +/- and AMOUNT scales are not labelled in semitones. Use oscillator OCT and NOTE to set exact intervals.

Example: small AMOUNT, short A/D and low S produce a brief pitch movement at note onset.

AMP ENVELOPE: global envelope



Panel detail · AMP ENVELOPE: global envelope

The global amplitude envelope shapes the mix level and works alongside the individual oscillator A/D/S/R envelopes. It also participates in the velocity-expression path, so the level response depends on both settings.

A (AMP ENVELOPE) Rise time of the global level when a note is played.

D (AMP ENVELOPE) Time for the global level to fall from its peak to S.

S (AMP ENVELOPE) Sustain level of the global envelope.

R (AMP ENVELOPE) Fade time after note release.

Silence can result from the combination of local and global envelopes, low OSC/MAIN levels or closed filters.

Pad example: lengthen global A and R, set sustain S, then refine the local envelopes so the layers enter at different times.

DELAY: repeats



Panel detail · DELAY: repeats

DELAY creates stereo repeats. TIME and FDBK control the main delay pair, ECHO sets the input contribution to an additional pair of delays, and LP CUT filters the effect signal. MIX sets the send into the delay branch.

TIME Time of the main delay pair. The scale is not labelled in milliseconds.

FDBK Feedback of the main delay pair, affecting the number and persistence of repeats. High settings can increase energy and extend the tail.

ECHO Input contribution to an additional pair of delays. It is not an effect-type selector or a menu of repeat counts.

LP CUT (DELAY) Cutoff of the low-pass filters on the delay return. Changes the brightness of the repeats after delay processing.

MIX (DELAY) Base signal level sent into delay. This is an effect send, not a verified normalized dry/wet crossfade.

TIME has no verified host-tempo synchronization or note-division selector. Set the timing by ear.

Minimum MIX removes the base send, but enabled AFTDELAY/VELODELAY buttons can still add a send contribution.

Example: use low MIX and moderate FDBK, choose TIME, then adjust LP CUT to make the repeats darker than the direct sound.

REVERB: space



Panel detail · REVERB: space

REVERB uses the stereo Reverb DH module. SIZE, WIDTH and DAMP shape its space and LP CUT adds filtering. Reverb receives the mix and the delay signal, so the repeats can also have reverberation.

SIZE Size of the virtual space in the reverb module; affects the character and persistence of its response.

WIDTH Stereo width of the reverberant space.

DAMP High-frequency damping within the reverb, affecting the brightness of its tail.

LP CUT (REVERB) Cutoff of the additional low-pass filters on the reverb return. Changes the tone after processing in the reverb module.

MIX (REVERB) Base signal level sent into reverb. Increases the contribution of the effect branch.

MIX is the reverb send. At minimum, also turn off the AFTVERB and VELOVERB buttons if reverberation remains audible.

In the supplied configuration the internal module mode is Freeze. The panel exposes no Normal/Freeze/Gated switch, so these modes are not presented as available choices.

Listening example: compare a low MIX and moderate SIZE, then vary DAMP while observing the brightness and tail behaviour.

GLOBAL LFO FILTER



Panel detail · GLOBAL LFO FILTER

The two lower global LFO sets act above the individual rows. GLOBAL LFO FILTER contributes to global TYPE-filter cutoff; GLOBAL LFO PITCH contributes to the shared source pitch. Each has its own RATE, SHAPE, DEPTH, target amount and A/D/S/R.

DEPTH (GLOBAL LFO FILTER) Level of the basic global filter-LFO signal.

RATE (GLOBAL LFO FILTER) Rate of the global filter LFO. The scale is not labelled in Hz or note divisions.

SHAPE (GLOBAL LFO FILTER) Selects Sine, Saw, Pulse or Tri.

CUTOFF (GLOBAL LFO FILTER) Amount of the global LFO applied to TYPE-filter cutoff.

Routing ON/OFF (GLOBAL LFO FILTER) Enables or disables the global LFO contribution to the target parameter.

Envelope ON/OFF (GLOBAL LFO FILTER) Adds a global-LFO component shaped by its A/D/S/R envelope.

A (GLOBAL LFO FILTER) Rise of the additional global-LFO component.

D (GLOBAL LFO FILTER) Transition of this component from its peak to S.

S (GLOBAL LFO FILTER) Sustained level of the additional component.

R (GLOBAL LFO FILTER) Fade of this component after note release.

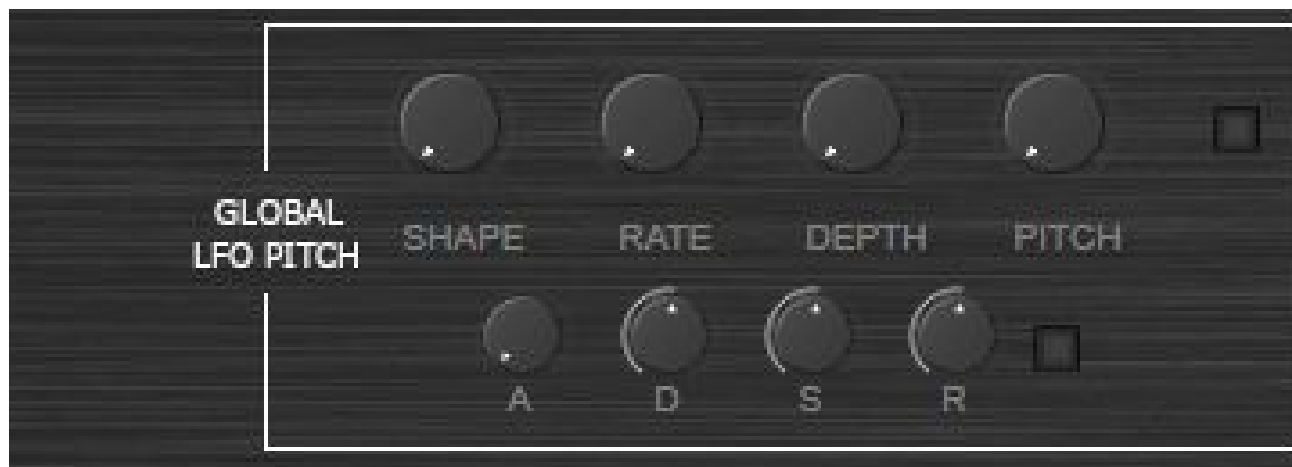
DEPTH, the target CUTOFF/PITCH control and routing ON/OFF work together. Enabling a single switch does not guarantee an audible effect.

Enabling the envelope adds an A/D/S/R-shaped component in parallel with the basic LFO; it does not turn the modulation into an envelope-only signal.

Velocity and aftertouch can affect the global LFOs as shown in the expression section.

Example: GLOBAL LFO FILTER with Sine and a slow RATE moves the shared timbre of all main oscillators; local LFOs can add movement to individual layers.

GLOBAL LFO PITCH



Panel detail · GLOBAL LFO PITCH

The two lower global LFO sets act above the individual rows. GLOBAL LFO FILTER contributes to global TYPE-filter cutoff; GLOBAL LFO PITCH contributes to the shared source pitch. Each has its own RATE, SHAPE, DEPTH, target amount and A/D/S/R.

DEPTH (GLOBAL LFO PITCH) Level of the basic global pitch-LFO signal.

RATE (GLOBAL LFO PITCH) Rate of the global pitch LFO. The scale is not labelled in Hz or note divisions.

SHAPE (GLOBAL LFO PITCH) Selects Sine, Saw, Pulse or Tri.

PITCH (GLOBAL LFO PITCH) Amount of the global LFO applied to the shared pitch.

Routing ON/OFF (GLOBAL LFO PITCH) Enables or disables the global LFO contribution to the target parameter.

Envelope ON/OFF (GLOBAL LFO PITCH) Adds a global-LFO component shaped by its A/D/S/R envelope.

A (GLOBAL LFO PITCH) Rise of the additional global-LFO component.

D (GLOBAL LFO PITCH) Transition of this component from its peak to S.

S (GLOBAL LFO PITCH) Sustained level of the additional component.

R (GLOBAL LFO PITCH) Fade of this component after note release.

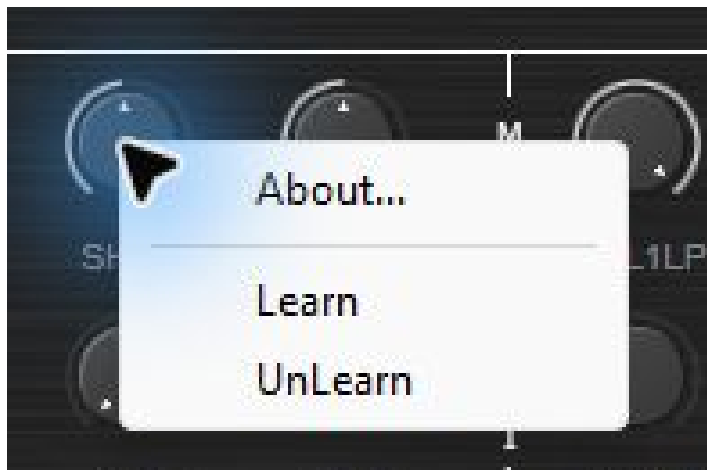
DEPTH, the target CUTOFF/PITCH control and routing ON/OFF work together. Enabling a single switch does not guarantee an audible effect.

Enabling the envelope adds an A/D/S/R-shaped component in parallel with the basic LFO; it does not turn the modulation into an envelope-only signal.

Velocity and aftertouch can affect the global LFOs as shown in the expression section.

Example: GLOBAL LFO FILTER with Sine and a slow RATE moves the shared timbre of all main oscillators; local LFOs can add movement to individual layers.

MIDI and parameters outside the panel



Panel detail · MIDI and parameters outside the panel

PSynth2 is a VST3 instrument with one MIDI input and a stereo L/R output. Load it on an instrument track in your DAW, supply MIDI notes and route the output to the mix. The main panel does not display every parameter that a host may show in its own parameter list.

MIDI to CV Channel Host-list parameter: All or channels 1-16. Defaults to All. Its control is outside the main panel, so this menu is not part of the illustrated interface.

DelayL / DelayR Internal times for the additional delay pair, with no visible panel controls. Separate from the main pair's TIME knob.

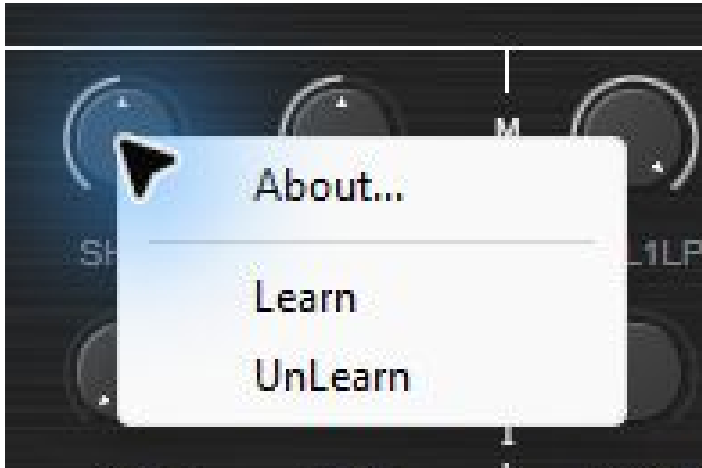
Feedback / Feedback Two internal feedback parameters for the additional delay pair, with no panel controls. Do not equate them with the visible FDBK knob.

The supplied configuration has a default polyphony of 12 voices. There is no verified visible polyphony selector on the panel.

Pitch bend and sustain are present in the plugin MIDI parameters. Enable the desired velocity and aftertouch targets with the top-row buttons.

Host-list parameters may use different names from the panel labels; identify the corresponding section and control when mapping them.

DAW automation names



Panel detail · DAW automation names

When automating, use the panel label and check which knob moves when the selected parameter changes. Some stored plugin names are shortened, repeated or different from the graphic label.

SUB2 → **Knob** The visible SUB2 level has the internal name Knob.

MLIZER → **MAINHIDDEN** The MLIZER knob appears as MAINHIDDEN.

FIL1LP2 → **FIL2LP** Oscillator 1's second LP2 filter has the internal name FIL2LP. A separate parameter with the same name corresponds to the actual FIL2LP in the OSC2 row.

RES1HP → **RES1LP** Oscillator 1's HP resonance has the internal name RES1LP. There is also a separate RES1LP parameter for the actual LP resonance.

GLOBAL LFO FILTER: RATE / DEPTH / SHAPE These three distinct knobs share the stored name GLOBALFOCUTOFF. Identify the intended one by checking its movement.

Different occurrences of the same name are separate parameters. Checking the movement of the intended control helps avoid automating the neighbouring section.

Sound design examples

These are suggested starting points for your own experiments. Save the current state first and test one function at a time.

Starting point: a simple bass

1. Enable OSC1, silence OSC2-OSC4 and minimize NOISE W/NOISE P/SUB1/SUB2. Reduce effect MIX and turn off AFTDELAY/VELODELAY and AFTVERB/VELOVERB.
2. Select Saw or Sine, OCT -1 and NOTE 0. Use a modest MAIN level.
3. Use short A, moderate D and a small R in both the local and global amplitude envelopes. Set S to suit the held note.
4. For Saw, lower FIL1LP and keep resonance moderate. Set global HP low. Change one control at a time while comparing the same note.

Starting point: a wide pad

1. Enable OSC1 and OSC2. Select the same wave, OCT 0 and NOTE 0. Slightly detune one oscillator with FINE.
2. Place PAN1 and PAN2 on opposite sides of the stereo field. Keep the combined OSC and MAIN levels moderate.
3. Lengthen A and R in the global AMP ENVELOPE. Refine local A/D/S/R so both layers start smoothly.
4. Add gentle LFO PAN movement: Sine, slow RATE, a small PAN amount and DEPTH moved away from zero. Enable PAN routing.

Starting point: a moving tone

1. Choose one audible Saw oscillator and set TYPE to Low Pass. Keep global HP low.
2. Set CUT so the tone is moderately dark and use a small RES setting.
3. In GLOBAL LFO FILTER choose Sine, a slow RATE and small DEPTH and CUTOFF settings. Enable global-LFO routing.
4. Compare movement with the LFO envelope disabled and enabled. When enabled, adjust A/D/S/R; an additional modulation layer is added to the basic LFO.

Troubleshooting

Plugin missing from the list Check that the host is x64, supports VST3 and scans the installation folder. Reopen the host and rescan after installation. Keep the full .vst3 bundle structure. Look in the instrument list as well as the plugin list.

No sound Check MIDI input, monitoring, track mute, audio output and MAIN. Enable at least one source and raise its level. Open the filter and set an audible amplitude envelope. In PSynth 2 also check the oscillator switch and its local envelope.

Sound is too dark or thin Check every filter in the path, including local filters. A low LP cutoff removes highs; a high HP cutoff removes lows. Temporarily disable filter envelopes and LFO routes to identify the stage changing the tone.

LFO or envelope has no effect Check depth, destination amount, route switches and envelope settings. Test with a held note. Filter envelopes and amplitude envelopes control different destinations.

Velocity or aftertouch has no effect Enable the intended destination and verify that the host passes the messages. Test velocity with different note strengths, and aftertouch with pressure after note onset. Check that other settings do not mask the change.

Distortion or sudden level increase Reduce MAIN, the combined oscillator and sub levels, resonance and drive or DIST. In PSynth 2 also check delay feedback and effect levels. Watch the DAW output meter too.

Sound does not fade Check sustain pedal, amplitude release and any held notes. In PSynth 2 lower delay feedback and the delay/reverb MIX controls separately to distinguish a held note from an effect tail.

Sound changes after reopening Check the plugin version, MIDI data, Learn assignments, automation and recalled switch states. Keep a copy of the working project and render audio when needed.

High CPU use Shorten long tails and reduce simultaneous notes. In PSynth 2 temporarily disable unused oscillators and modulation. Increase the host's audio buffer or freeze the track if the project requires it.

Version and documentation scope

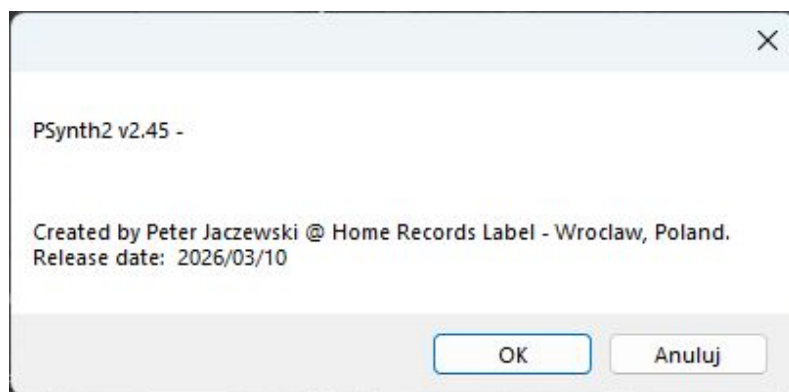
PSynth2 2.45 · Home Records Label · VST3 for Windows x64. The manual covers this version's panel and the additional host parameters described in the relevant chapters.

Screenshots were captured on 7 October 2026 in Ableton Live 12 Suite. The interface configuration was compared with the package used for the descriptions. Screen positions are not a preset catalog.

Routing descriptions were prepared from the bundled interface configuration, parameter list and signal graph. They document the behavior represented by those connections. The manual does not include acoustic measurements or listening verification of every setting combination.

Numbers and units are given only where they can be unambiguously mapped to the function. Do not interpret a raw automation value from 0 to 10 as seconds, hertz or decibels. Where no unit is specified, adjust the parameter by its function and by listening.

Installation information is in README-HRL.txt in the bundle. Component notices are in Contents\Resources\License.txt. News and support: www.homerecordslabel.com.



PSynth 2 version information