

THE_GAIN 2

USER MANUAL

Draw your dynamics. The visual gain-envelope shaper for sidechain pumping, trance gates, tremolo and multiband ducking.

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What It Is

THE_GAIN 2 is not a volume knob. It's a **visual gain-envelope shaper** — a plugin where you literally *draw* the volume movement you want, then trigger and time it to your track. The heart of it is the **Table**: a drawable, time-varying gain curve that rides on top of your audio, turning your level into something alive. Carve a dip and you get ducking. Draw a square notch and you get a trance gate. Sketch a smooth valley and you get a musical pump. A ramp gives you a swell. Whatever shape you draw is exactly the volume shape you hear.

What makes it a studio weapon is *how* that curve gets driven. Loop it to your tempo for a perfect tremolo. Fire it from a kick on the sidechain for classic EDM pumping. Trigger it from MIDI notes, from the track's own transients, or from a built-in step sequencer for programmed glitch chops. One curve, nine ways to launch it.

Then it goes deeper than any pumping plugin has a right to. Split the signal into up to **three frequency bands** and set how hard the envelope hits each band — so your sub stays rock-solid while the mids and highs breathe. Bias each band toward its mid (mono) or side (stereo) content. When the envelope is fired by audio, let its intensity *follow the trigger level* so heavier hits duck harder. Finish with a clean output stage — make-up gain, sample delay for phase alignment, and a polarity flip — and you've got a tool that does pumping, gating, tremolo, ducking, stutters, and swells, all from one drawn shape.

Why You'll Love It

- **You draw it, you hear it.** No abstract attack/release guessing — the curve *is* the volume.
- **Nine trigger modes from one curve** — Loop, MIDI Retrigger/One-Shot, Audio Retrigger/One-Shot (sidechain), Self Retrigger/One-Shot (the track itself), and Step Sequencer/Step One-Shot.
- **Bass-safe pumping for real.** Multiband split means you can pump the mids and highs while the sub never flinches.
- **Up to seven curve slots** with instant switching, MIDI-note-to-slot selection, and a dedicated slot step sequencer for patterns that never get boring.
- **Dynamic mode that breathes** — in the Audio and Self trigger modes, per-band intensity follows the trigger level for natural, musical ducking.
- **Two step sequencers** — one fires the envelope, one picks which curve slot plays — both able to lock to your DAW's tempo.
- **Free / Sync / Range timing** per slot, with a Range position you can automate from your DAW for build-ups and tempo sweeps.
- **Rock-solid triggering** — a dedicated low/high-cut detection filter (20 Hz–20 kHz) plus an audible SC MONITOR so you trigger off exactly what you want.
- **A deep curve toolkit** — select, pencil, line, step and shape tools, a 75-shape library, flip/reverse transforms, and copy/paste between slots.
- **Workflow extras** — factory + user presets, a curve-preset browser, multi-instance envelope sync, tooltips in five languages, undo/redo, DAW automation, and a scalable UI.

The Interface at a Glance

The **curve editor** fills the top of the window and is always visible — it's where you'll spend most of your time. Directly above the curve sits the **slot bar** (slot buttons 1–7, + and –, and the SEQ button). Below that runs the editor's toolbar, grouped into **TIMING** (Trigger, sync mode and speed), **WAVEFORM** (display length, Freeze, Zoom), **GRID** (Lock, Size, Pin) and **SWING**, followed by the **Free Run** button.

Under the editor, a **tab bar** with six tabs switches the lower panel:

- **PRESETS** — the preset browser ("PHIL'S PROFILES" and "YOUR PROFILES").
- **BANDS** — the multiband crossover with a real-time spectrum analyzer.
- **TABLES** — the curve-preset browser: ready-made curves you can drop into the current slot.
- **STEP SEQUENCER** — the trigger and slot step sequencers.
- **TOOLS** — drawing tools, the shape library, flip/reverse and copy/paste.
- **AUDIO + MIDI** — OUTPUT SIGNAL (OUT, DELAY, Ø), AUDIO TRIGGER SETTINGS (SENSITIVITY, FILTER, SC MONITOR) and MIDI SETTINGS (TRIGGER NOTE, NOTES TO SLOTS).

The top bar holds the tooltip bar, undo/redo, THE_CHAT, Instance Sync, this manual, Settings and the Bypass button.

The centerpiece is the **gain-envelope curve editor**: control points, curve handles for bending each segment, and a snapping grid. As the envelope runs, the part of the curve it has already played lights up. Behind the curve you see **your track's waveform** (as it leaves THE_GAIN 2, so you can watch the ducking happen) and a separate **sidechain waveform**, so you can line your shape up to the actual audio. **Freeze** keeps the last picture on screen after you stop playback, and the WAVEFORM length popup sets how much time the display shows. The BANDS tab adds a **live spectrum analyzer** with draggable crossover dividers and per-band controls. (Live displays only move while audio is running; the waveforms only draw while your DAW is playing.)

Controls — In Depth

Tab Bar (View Selector)

- **What it does:** Switches the lower panel between the six tabs: PRESETS, BANDS, TABLES, STEP SEQUENCER, TOOLS, AUDIO + MIDI.
- **Range/units:** Six tabs; one panel shown at a time. The curve editor above stays visible on every tab.
- **In your music:** Pure navigation — it's how you reach preset browsing, multiband, curve presets, the sequencers, drawing tools, and the audio/MIDI page.
- **Pro tip:** Draw your shape first, pick the Trigger mode in the editor's TIMING section, then fine-tune detection on AUDIO + MIDI. That order keeps you focused on the shape before the timing.

Gain Envelope Curve Editor (the Table)

- **What it does:** The drawable gain-over-time curve — the soul of the plugin. The top of the editor is full level, the bottom is silence. With the Select tool (the default): double-click empty space to add a point (it lands on the curve), drag a point to move it, right-click or double-click a point to delete it (the first and last points always stay). Between every two points sits a round curve handle — drag it up or down to bend that segment, double-click it to make the segment straight again, or scroll the mouse wheel over a point or handle to bend it. Drag across empty space to box-select several points (Shift adds to the selection), then drag them together or press Delete or Backspace to remove them. Shift+click toggles a point's selection, and holding Shift while you drag bypasses the grid snap. While you drag a single point, a readout shows its position in the cycle and its level.
- **Range/units:** Level 0% (silence) to 100% (full level, no change); position 0–100% of the slot's cycle. Default grid 1/16, Grid Lock on, Grid Pin on.
- **In your music:** This *is* your dynamics. A dip = ducking. A square notch = trance gate. A smooth valley = a musical pump. A ramp = a fade or swell.
- **Pro tip:** Drag the curve handle on a pump's recovery segment to round it off — a straight recovery snaps back hard, a rounded one grooves.

Slot Buttons / Add (+) / Remove (–)

- **What it does:** Selects the active curve slot; "+" adds a slot and selects it, "–" removes the last slot (it only appears when you have more than one). Each slot stores its own curve *and* its own timing (sync mode, speed, Range settings). The Trigger mode and Swing are shared by all slots.
- **Range/units:** 1 to 7 slots, numbered 1–7.
- **In your music:** Keep a subtle pump, a hard duck, a gate, and a fade all loaded at once, then switch between them by hand, by MIDI note, via the slot sequencer, or with DAW automation.
- **Pro tip:** Build a "verse" slot and a "drop" slot, then switch between them with MIDI notes so the arrangement changes its own dynamics.

SEQ Button (Slot Sequencing)

- **What it does:** The step-icon button at the right end of the slot bar. Turns on the Slot Step Sequencer, which then chooses the active curve slot step by step — in any trigger mode.
- **Range/units:** on/off. The slot sequencer only runs while your DAW is playing.
- **In your music:** Rotates curve shapes per step or beat for evolving, never-repeating dynamics.
- **Pro tip:** Set the slot sequencer to a triplet value (e.g. 1/4T) while your groove runs on straight notes — the shapes rotate across the beat and the pattern takes much longer to repeat.

Trigger Mode (popup)

- **What it does:** Sets what starts/restarts the envelope. The popup reads "Trigger: ...". Retrigger modes keep cycling after each trigger; One-Shot modes play the curve once and hold at the end.
- **Range/units:** Loop, MIDI Retrigger, MIDI One-Shot, Audio Retrigger, Audio One-Shot, Self Retrigger, Self One-Shot, Step Sequencer, Step One-Shot.
- **In your music:** Loop = tempo-locked tremolo/gate. MIDI = the TRIGGER NOTE fires the envelope. Audio = a hit on the sidechain input fires it (kick-driven pump). Self = the track's own transients fire it. Step = the trigger step sequencer fires it. In every mode except Loop, the envelope starts the moment it's triggered and runs at the slot's speed.
- **Pro tip:** Use the **One-Shot** modes for one-time drops and swells — the curve plays through and holds, so it won't loop back on you.

Sync Mode (popup)

- **What it does:** Selects how the envelope cycle length is set for the current slot.
- **Range/units:** Free (milliseconds), Sync (a note value), Range (sweeps between two note values).
- **In your music:** Free = exact ms rate; Sync = tempo-locked pump/gate; Range = automatable speed sweeps.
- **Pro tip:** Each slot remembers its own sync mode — keep one slot synced for the groove and another in Free for a non-tempo flutter.

Duration / Tempo Slider (Free mode)

- **What it does:** Sets the cycle length when Sync = Free. When Sync = Range, the same slider becomes the Range position.
- **Range/units:** Free: 100 ms to 10 s (shown in ms below one second, in seconds above). Range: 0–100%.
- **In your music:** Shorter = faster tremolo/gate; longer = slow swells.
- **Pro tip:** For un-quantized, "outside the grid" tremolo, set odd ms values that don't line up with the tempo.

Note Division (popup, Sync mode)

- **What it does:** Sets the tempo-synced length of one envelope cycle.
-

Range/units: 1/1 through 1/64 as straight, dotted (D) and triplet (T) values, plus 2 Bars, 3 Bars and 4 Bars.

- **In your music:** Locks the pump/gate rate to the song — 1/4 and 1/8 for classic pumping, faster for stutters and trance gates, bars for long swells.
- **Pro tip:** Dotted values (e.g. 1/8D) give that off-kilter, rolling pump heard on a lot of modern house.

Range Min / Max Division + Range Position

- **What it does:** Two note-value popups set the ends of the range; the position slider sweeps the cycle length between them. At 0% the cycle uses the Min value, at 100% the Max value. In Loop mode, the envelope locks to your song's grid near either end; in between, the speed glides freely. Your DAW can automate the position (it appears as **TempoRate**).
- **Range/units:** Min and Max: any note value from the Note Division list (defaults 1/16 and 1/4); position 0–100%.
- **In your music:** Automate accelerating or decelerating rhythmic motion across a build or breakdown.
- **Pro tip:** Leave Min on a fast value (1/16) and Max on a slow one (1/4), then automate TempoRate from 100% down to 0% across a riser — the gate speeds up into the drop.

Swing Slider

- **What it does:** Adds shuffle. On the curve, it pushes the second half of each cycle later — at 100% it starts at about two-thirds of the cycle instead of halfway. On the step sequencers, it pushes every second step later. The grid lines move with the swing so you see where the audio will land.
- **Range/units:** 0–100% (default 0%). Shared by all slots.
- **In your music:** Adds groove and human feel to looping pumps and gates.
- **Pro tip:** A little swing (10–25%) on a trance gate instantly takes it from robotic to musical.

Free Run (button)

- **What it does:** The running-figure button at the right end of the toolbar. When on, the envelope keeps running even when the DAW transport is stopped. When off, THE_GAIN 2 passes your audio through untouched while the transport is stopped.
- **Range/units:** on/off (on by default).
- **In your music:** Lets your tremolo or gating keep moving while you audition with the transport stopped. Switch it off when you want to hear the dry sound while you edit MIDI.
- **Pro tip:** Leave it on while sound-designing so you hear the motion without hitting play every time.

Grid Lock (magnet)

- **What it does:** Snaps points to the grid — in time and in level — when you add, drag or draw them. Hold Shift while dragging a point to bypass it.
- **Range/units:** on/off (on by default).
- **In your music:** Keeps gate and pump edges perfectly on the beat.

- **Pro tip:** Leave it on for rhythmic work, Shift-drag for the one or two points that need to sit slightly off-grid.

Grid Pin

- **What it does:** Keeps the grid visible at all times; when off, the grid only shows while your mouse is over the editor.
- **Range/units:** on/off (on by default).
- **In your music:** Easier precise editing.
- **Pro tip:** Combine with the right Grid Size so you can eyeball every point against the beat.

Grid Size (popup)

- **What it does:** Sets how finely the grid divides one envelope cycle (and, with Grid Lock on, the level steps points snap to).
- **Range/units:** 1/2, 1/4, 1/8, 1/16, 1/32, 1/64 (default 1/16).
- **In your music:** Determines the rhythmic resolution of your drawn curves. With a one-bar cycle (1/1), a 1/16 grid puts a line on every 16th note.
- **Pro tip:** Drop to 1/32 or 1/64 for stutter and glitch detail, bump up to 1/4 for broad, slow pumps.

Waveform Length (popup)

- **What it does:** Sets how much time the waveforms behind the curve show (the popup in the WAVEFORM section).
- **Range/units:** 1/16, 1/8, 1/4, 1/2, 1 Bar, 2 Bars, 4 Bars, 8 Bars (default 1/4).
- **In your music:** A visual timing reference for aligning your drawn curve to the audio.
- **Pro tip:** Match it to your envelope's cycle length so one drawn cycle lines up with one displayed segment.

Freeze (snowflake)

- **What it does:** When on, the last waveform stays on screen after you stop playback. When off, the waveform display clears as soon as the transport stops.
- **Range/units:** on/off (on by default).
- **In your music:** Study transients and place curve points precisely.
- **Pro tip:** Stop playback right after a loud kick hit — the frozen waveform stays put so you can snap your duck point to the exact transient.

Zoom Slider

- **What it does:** Zooms into the curve and waveform. While zoomed in, drag empty space to move around, and use the small overview map in the bottom-right corner to jump to another part of the curve.

- **Range/units:** 1.0x to 8.0x.
- **In your music:** Fine detail editing of complex curves.
- **Pro tip:** Zoom in to fine-tune the steepness of a gate edge without nudging neighboring points.

Drawing Tools (TOOLS tab)

- **What it does:** Five tools for the curve editor. **Select** — the default; all the point and handle gestures described above. **Pencil** — drag across the editor to draw freehand; it replaces the curve under your stroke. **Line** — click a start point, then an end point, for a straight segment. **Step** — click a grid cell to fill it at that height, or drag across to draw a flat step with hard edges. **Shape** — pick a shape from the library below, then drag across the editor to fit it over exactly that span. All tools follow Grid Lock.
- **Range/units:** One tool active at a time. Switching to the PRESETS, BANDS, TABLES or STEP SEQUENCER tab returns the editor to Select.
- **In your music:** Pencil for organic swells, Line for clean ramps, Step for hard gates and chops, Shape for instant classics.
- **Pro tip:** Use the Step tool with a 1/16 grid on a one-bar cycle — every click is one 16th of the gate pattern.

Shape Library

- **What it does:** With the Shape tool active, a scrollable grid of shape thumbnails appears. Click one, then drag across the editor to place it; you can keep placing it again and again.
- **Range/units:** 75 shapes in ten families: Ramps, Curves, Sidechain, Tremolo, Sweep, Transient, Rhythm, Dynamics, Steps and Special (sidechain ducks, tremolos, sweeps, plucks, pulses, stutters, swells and more).
- **In your music:** Fast, reliable starting points — drop a sidechain duck on every beat or a tremolo across the whole cycle in two moves.
- **Pro tip:** Place a shape over just part of the cycle — a stutter on the last quarter of a bar, a clean duck everywhere else.

Flip, Reverse, Copy and Paste

- **What it does:** **Flip Vertical** turns the curve upside down (dips become peaks). **Flip Horizontal** mirrors it in time. **Reverse Curve** plays it backwards while keeping each bend's direction. **Copy Curve** and **Paste Curve** copy the current slot's curve and paste it into whichever slot is active.
- **Range/units:** One click each; they act on the current slot.
- **In your music:** Turn a pump into a swell, a fade-out into a fade-in, or build variations of one shape across your slots.
- **Pro tip:** Draw your main pump in slot 1, copy it, paste it into slot 2, then flip or tweak it for an instant B-version.

Multiband Crossover (BANDS tab)

- **What it does:** A real-time spectrum (your track plus the sidechain) with draggable crossover dividers; splits the signal so every band gets the envelope at its own Intensity. Use + and – to set the number of bands.
- **Range/units:** 1, 2 or 3 bands (Low / Mid / High; with 2 bands, Low / High). With 1 band, the controls act on the whole signal.
- **In your music:** Bass-safe sidechain, vocal-range ducking, high-end-only shimmer — process frequencies independently.
- **Pro tip:** Start with 3 bands even if you only want to pump one; soloing each band teaches you exactly where your energy lives.

Crossover Frequency Dividers

- **What it does:** Drag to set the low/mid and mid/high split frequencies; each divider shows its frequency.
- **Range/units:** 20 Hz to 20 kHz, kept at least 50 Hz apart. Defaults about 290 Hz and 2 kHz.
- **In your music:** Defines which frequencies each band's envelope affects.
- **Pro tip:** Put the low/mid split right above your sub (often 100–250 Hz) so the low band can keep your bass untouched.

Per-Band Solo

- **What it does:** The headphone button auditions a band in isolation (it lights yellow when active). Appears with 2 or 3 bands.
- **Range/units:** on/off per band (default off).
- **In your music:** Check exactly what each band contains before processing.
- **Pro tip:** Solo the mid band on a full mix — that's where vocals and snares live, and where ducking decisions matter most.

Per-Band Intensity Slider

- **What it does:** Sets how deep the gain envelope goes on that band. At 100% the bottom of your curve means silence; at 50% it only drops the band to half level; at 0% the band is untouched. Double-click to reset to 100%.
- **Range/units:** 0–100% (default 100%).
- **In your music:** 0% leaves a band untouched (keep the sub solid); 100% is full pump/duck on that band.
- **Pro tip:** This single control is the secret to bass-safe pumping — low band at 0%, mids and highs at 100%.

Per-Band Mid/Side Balance Slider

- **What it does:** Biases the envelope toward the band's mono (mid) or stereo (side) content. In the center it acts on the whole band. Double-click to re-center. *This is the only true stereo control in the plugin.*

- **Range/units:** 100% M (Mid only) through center ("M/S") to 100% S (Side only); default center.
- **In your music:** Duck the centered vocal while keeping stereo tails alive, or pump only the sides for rhythmic width.
- **Pro tip:** Bias a band toward S and loop a gentle pump to get rhythmic stereo widening that the center never hears.

Per-Band Dynamic Mode (D)

- **What it does:** Makes the band's intensity follow the level of the trigger signal — the sidechain in the Audio modes, the track itself in the Self modes (after the FILTER). While it's on, the band's Intensity slider turns into a live meter showing the intensity actually applied.
- **Range/units:** on/off per band (default off). The D buttons only appear in the Audio and Self trigger modes.
- **In your music:** Louder hits get more processing, quiet passages less — natural, breathing dynamics.
- **Pro tip:** Use it on busses where the energy changes section to section, so the pump leans in on the loud parts.

Per-Band Dynamic Threshold

- **What it does:** A small vertical slider that appears next to a band when its D button is on. Sets the trigger level at which that band reaches its full intensity; below it, the band is processed proportionally less.
- **Range/units:** -48 dB to 0 dB (default -12 dB).
- **In your music:** Tunes how sensitive the per-band dynamic response is.
- **Pro tip:** Lower the threshold to make even modest passages duck fully; raise it so only the biggest hits reach full intensity.

Trigger Step Sequencer

- **What it does:** A programmable on/off pattern; each active step fires the envelope. Click a step to switch it on or off; click and drag across steps to paint the same state. It drives the envelope in the Step Sequencer and Step One-Shot trigger modes.
- **Range/units:** 4, 8, 16, 32 or 64 steps. SYNC: one step per note value (1/1 to 1/64, straight, dotted or triplet). FREE: 10 ms to 2000 ms per step (drag the ms field). Default 16 steps, synced at 1/8.
- **In your music:** Programmed rhythmic chops, gates and glitch patterns locked to tempo.
- **Pro tip:** Leave gaps in the pattern — the envelope only restarts on active steps, so the empty ones let a longer curve play out.

Slot Step Sequencer

- **What it does:** Chooses which curve slot plays on each step: drag a step up or down to pick a slot. Each step shows a mini picture of the chosen slot's curve and its number; an empty step keeps the current slot. Runs when the SEQ button is on, in any trigger mode.

- **Range/units:** 4, 8, 16, 32 or 64 steps; slots 1–6 can be chosen per step. It always follows your DAW's tempo and only runs while the transport plays, so leave it on SYNC and set the rate with its note-value popup (1/1 to 1/64, straight, dotted or triplet). Default 4 steps at 1/4.
- **In your music:** Rotate between different envelope shapes per step for evolving patterns.
- **Pro tip:** Load four contrasting shapes into your slots, then let this sequencer cycle them for instant variation.

Output Gain (OUT)

- **What it does:** Sets the final output level after envelope processing.
- **Range/units:** –100 dB to +24 dB (default 0 dB).
- **In your music:** Make-up or level compensation after pumping/ducking changes perceived loudness.
- **Pro tip:** Heavy ducking lowers average level — nudge Output Gain up a couple dB to keep the track sitting where it did before.

Delay (DELAY)

- **What it does:** Delays the output by a number of samples for phase/time alignment.
- **Range/units:** 0 to 512 samples (default 0).
- **In your music:** Aligns the processed signal with a parallel dry chain to avoid comb filtering.
- **Pro tip:** When blending THE_GAIN 2 in parallel with a dry copy, nudge Delay until the combined sound is fullest, not thinnest.

Invert Phase (Ø)

- **What it does:** Flips output polarity 180 degrees.
- **Range/units:** on/off.
- **In your music:** Phase-match parallel chains, or flip polarity for cancellation checks.
- **Pro tip:** Use it with Delay to dial in clean parallel processing — flip and listen for what disappears to find phase trouble.

Sidechain Filter (FILTER)

- **What it does:** Band-limits the detection signal with low-cut and high-cut handles *before* transient detection — the sidechain in the Audio modes, the track itself in the Self modes. It never changes the audio you hear.
- **Range/units:** 20 Hz to 20 kHz, two handles (defaults 20 Hz and 20 kHz, i.e. wide open).
- **In your music:** Focus triggering on kick body (low) or hats (high) and ignore rumble — tighter, more reliable triggering.
- **Pro tip:** Pull the high-cut down to ~150–200 Hz so only the kick's low thump triggers the pump, ignoring everything else in the sidechain.

Sidechain Sensitivity (SENSITIVITY)

- **What it does:** Sets how easily a transient fires the envelope in the Audio and Self modes. Higher = more sensitive (quieter hits fire too); lower = only the strongest hits fire. Detection listens for the attack of a hit, not just its loudness.
- **Range/units:** 0–100% (default 60%).
- **In your music:** Dial in reliable triggering on the source groove.
- **Pro tip:** If you get false triggers from hats or snares, lower SENSITIVITY (or tighten the FILTER); if the pump skips kicks, raise it.

SC Monitor (SC MONITOR)

- **What it does:** Replaces the output with the filtered detection signal — the sidechain in the Audio modes, the track itself in the Self modes — so you hear what the detector hears.
- **Range/units:** on/off. Works in the Audio and Self trigger modes.
- **In your music:** Hear exactly what the detector receives to tune the filter and sensitivity.
- **Pro tip:** Switch it on while adjusting the FILTER — when you can clearly hear *only* the trigger element, your detection will be bulletproof. Switch it off before bouncing.

MIDI Trigger Note (TRIGGER NOTE)

- **What it does:** Selects which incoming MIDI note fires the envelope in the MIDI Retrigger and MIDI One-Shot modes.
- **Range/units:** C#-1 to G9, shown as a note name (default C1).
- **In your music:** Note-accurate dynamic hits and swells driven by a MIDI track.
- **Pro tip:** Program a kick-pattern MIDI clip and route it in to get perfectly timed pumping without any audio sidechain routing.

Notes-to-Slots (NOTES TO SLOTS)

- **What it does:** Lets incoming MIDI notes pick the active slot. The white keys of any octave map to the slots: C = 1, D = 2, E = 3, F = 4, G = 5, A = 6, B = 7. Black keys and notes for slots you haven't added are ignored. In the MIDI trigger modes, the TRIGGER NOTE fires the envelope instead of switching slots.
- **Range/units:** on/off (default on).
- **In your music:** Play different gain shapes from a keyboard or pads live.
- **Pro tip:** Keep one octave under your fingers — C through B are your seven shapes — and perform your dynamics in real time.

Bypass (button + overlay)

- **What it does:** The power button in the top bar soft-bypasses all processing; a full-window overlay reads "BYPASSED - CLICK ANYWHERE TO RE-ENABLE PROCESSING," and clicking it re-enables.
- **Range/units:** on/off.

- **In your music:** A/B the processed vs. unprocessed signal.
- **Pro tip:** Because ducking lowers level, set Output Gain to roughly level-match first so your A/B compares *tone and movement*, not loudness.

Preset Browser (PRESETS tab)

- **What it does:** Browse and load presets, switching between "PHIL'S PROFILES" (factory) and "YOUR PROFILES" (yours). Filter by category, search by name, and click a preset to load it. In YOUR PROFILES, the save icon stores your current setup (enter a name and pick a category: DUCKING, RHYTHM, MULTIBAND, CREATIVE or PERFORM; you're asked before an existing preset is overwritten) and the folder icon opens your preset folder. A preset stores all your slots with their curves and timing, the Trigger mode, Swing, the SEQ setting, both step sequencers and the BANDS settings. The AUDIO + MIDI settings are not part of a preset, so your output and trigger setup stays as it is when you switch.
- **Range/units:** Factory/User toggle; categories and search. Factory presets can refresh online when the plugin starts.
- **In your music:** Instant starting points (e.g. PAD TO PATTERN, BASIC TRANCEGATE, ICING) and recall of your own setups.
- **Pro tip:** When you nail a pump, save it to YOUR PROFILES — your shape, sequencers, and bands all travel together to the next project.

Curve Preset Browser (TABLES tab)

- **What it does:** A scrollable grid of curve thumbnails; click one to load that curve into the current slot.
- **Range/units:** Thumbnail grid; scroll with the mouse wheel or the scrollbar.
- **In your music:** Fast envelope shaping without drawing a thing.
- **Pro tip:** Drop a starter curve in, then tweak its points — far faster than building every pump from scratch.

Instance Sync

- **What it does:** The Instance Sync button in the top bar opens the LINKED INSTANCES panel, which lists every open THE_GAIN 2 in your session. Each card shows the instance name (double-click to rename), a preview of its curve and its active slot, plus three buttons: LINK/LINKED joins or leaves the sync group, SEND pushes this Table to that instance, GET pulls its Table into this one. SEND TO ALL and LINK ALL sit at the bottom. Linked instances follow each other's Table edits automatically — curves, slots and timing.
- **Range/units:** One card per instance.
- **In your music:** Keep multiple tracks' envelopes aligned for parallel or multi-track shaping.
- **Pro tip:** Link every instance on a stem group so one curve edit updates them all — perfect for whole-group pumping.

Undo/Redo

- **What it does:** Undo and redo buttons in the top bar for changes to the Table, both step sequencers, Output Gain, Delay, and Invert Phase.
- **Range/units:** Step back and forward through your edits.
- **In your music:** Safe experimentation while editing.
- **Pro tip:** Go wild redrawing curves — undo always has your back.

DAW Automation

- **What it does:** Eight controls appear in your DAW's automation list: **TempoRate** (the Range position of the slot that's playing), **Slot** (which curve slot plays), **Low Intensity**, **Mid Intensity**, **High Intensity**, **Low M/S**, **Mid M/S** and **High M/S**.
- **Range/units:** With 1 band, the Low lanes control the whole signal; with 2 bands, the upper band follows the Mid lanes.
- **In your music:** Speed a gate up into the drop, switch shapes per song section, or let the low end breathe only in the chorus.
- **Pro tip:** With 2 or 3 bands, automate Low Intensity from 100% down to 0% at the drop — the build pumps the whole mix, the drop keeps the sub rock-solid.

UI Zoom Dragger

- **What it does:** Drag the handle in the bottom-right corner to scale the whole window.
- **Range/units:** 50% to 300% of the 1000 × 700 window.
- **In your music:** Fit the editor to your screen.
- **Pro tip:** Scale up for detailed curve drawing on a laptop; scale down to keep an eye on the full window on a big display.

Settings / Docs / Help / Tooltips

- **What it does:** The gear icon opens Settings: Language (English, Deutsch, Francais, Espanol, Italiano), Show Tooltips, Reset Zoom, a Tutorial button, and the version you're running. The book icon opens this manual inside the plugin. The robot icon opens THE_CHAT, the built-in assistant, which can read your current settings when you ask it something. The tooltip bar at the top left explains whatever control you hover, and an update banner appears when a new version is ready to download.
- **Range/units:** Panels open and close with their buttons.
- **In your music:** Help and housekeeping — no audio effect.
- **Pro tip:** Leave tooltips on while you're learning; the bar explains whatever control you hover.

First Launch and Login

- **What it does:** The first time you open THE_GAIN 2 it asks for your philspeiser.com login (email and password) to activate. On first launch, a welcome panel lets you pick your language and watch the walkthrough.

- **Range/units:** One-time setup.
- **In your music:** Log in once and get straight to work.
- **Pro tip:** Hit WATCH THE WALKTHROUGH on the welcome panel — it's the fastest tour of the plugin.

Visual Feedback & Metering

THE_GAIN 2 is built to be read at a glance:

- **The curve editor** shows your control points, curve handles and the snapping grid, and lights up the part of the curve the envelope has already played so you can watch it sweep in real time. While you drag a point, a readout shows its position and level.
- **Two waveforms** sit behind the curve — **your track** (after processing) and the **sidechain signal** — so you align your shape to the actual audio. Use **Freeze** to keep them on screen after you stop and the WAVEFORM length popup to set the time window.
- **The BANDS tab** shows a **live spectrum analyzer** of your track and the sidechain, with draggable crossover dividers and their frequencies, plus per-band Intensity and M/S readouts (Intensity turns into a live meter in Dynamic mode, with a dB readout on the threshold).
- **Both step sequencers** highlight the step that's playing; slot steps show a mini picture of the curve they select.
- **The preset browser** lists categories and presets with search; the **curve-preset grid** and the **shape library** show thumbnail previews of each shape.

Remember: live displays only move while audio is running, and the waveforms only draw while your DAW is playing — hit play to see them move.

How to Use It — Real-World Workflows

Classic EDM Sidechain Pump (on a synth/pad bus)

1. Insert **THE_GAIN 2** on the bus and route your kick to its sidechain input.
2. In the editor's **TIMING** section, set **Trigger** to **Audio Retrigger**.
3. Go to **AUDIO + MIDI**, switch on **SC MONITOR**, and use the **FILTER** to leave only the kick's low thump; then switch **SC MONITOR** off.
4. Dial **SENSITIVITY** so it fires on every kick (the default 60% is a good start).
5. Back in **TIMING**, set the sync mode to **Sync** and the note value to **1/4**, then draw a dip-and-recover valley.
6. Round the recovery with its curve handle until it pumps musically.

Bass-Safe Multiband Pump (on a full mix or instrument group)

1. Build the pump curve as above.
2. Open **BANDS**, click **+** until you have 3 bands, and drag the low/mid crossover just above your sub (~100–250 Hz).
3. Set the **low band Intensity** to **0%** and the mid/high bands to **100%**.
4. Solo each band to confirm the split, then un-solo. Your sub stays solid while everything above it breathes.

Trance Gate (on a pad or chord stab)

1. Set **Trigger** to **Loop** and the sync mode to **Sync** at **1/1** (one bar per cycle) — or load the **BASIC TRANCEGATE** factory preset as a starting point.
2. Set **Grid Size** to **1/16** so every grid line is a 16th note, and keep **Grid Lock** on.
3. On **TOOLS**, use the **Step** tool (or a Pulse shape) to draw a square on/off pattern.
4. Add **Swing** to humanize, and switch to a different slot for the breakdown.

MIDI-Triggered Drop Swell (on the main lead/master submix)

1. Set **Trigger** to **MIDI One-Shot**.
2. Draw a slow rising ramp from the bottom (silence) to the top (full level) — a fade-in swell — and set the slot's length to the swell you want (e.g. Sync at **4 Bars**).
3. On **AUDIO + MIDI**, set the **TRIGGER NOTE** to the note you'll place in a MIDI clip.
4. Drop one MIDI note exactly where the swell should begin; the envelope plays once and holds at full level into the drop.

Pro Tips & Creative Techniques

- **Stutter/glitch chops:** Use the **Step Sequencer** trigger mode with sharp step curves, switch on **SEQ**, and let the **Slot Sequencer** rotate shapes per step for chaos that stays in time.
- **Self-gating drum loops:** **Self Retrigger** makes the loop's own transients drive the envelope — instant rhythmic re-shaping with no routing.
- **Side-only width movement:** Push a band's **M/S** slider toward S and loop a gentle pump for rhythmic stereo widening the center never hears.
- **High-end shimmer:** High band Intensity at 100%, low/mid at 0% — rhythmic shaping on the air only.
- **Vocal-range ducking:** 3 bands, mid band at full Intensity with its **M/S** slider pushed toward M — ducks the centered vocal range while stereo reverb tails stay open.
- **Breathing, musical ducking:** In an Audio or Self trigger mode, turn on per-band **Dynamic Mode** so heavier hits duck more than light ones; tune with the **Dynamic Threshold**.
- **Build-up automation:** **Range** sync with an automated **TempoRate** lane to accelerate the pump across a riser into the drop.
- **Clean parallel blends:** Use **Output Gain**, **Delay**, and **Invert Phase** together to phase-align the processed chain against a dry copy.
- **Live performance rig:** Turn on **NOTES TO SLOTS**, load contrasting shapes into your slots, and perform your dynamics from a keyboard or pads — white keys C to B pick slots 1 to 7.

Quick Start (a result in 30 seconds)

1. Insert THE_GAIN 2 on the track you want to move (log in with your philspeiser.com account the first time).
2. Open **PRESETS** and load a starting point (try **BASIC TRANCEGATE** or a **DUCKING** preset).
3. Hit play — watch the curve light up and the waveform move; you'll hear the movement immediately.
4. In the curve editor, drag the points to taste and pick the note value in the **TIMING** section for the rate.
5. To pump from a kick instead, set **Trigger** to **Audio Retrigger**, route your kick to the sidechain, and tune **SENSITIVITY** on **AUDIO + MIDI**.
6. Use **Output Gain** to level-match, then A/B with **Bypass**. Done.

Specs

- **Formats:** VST3, AU (macOS), AAX (macOS and Windows). No standalone version.
- **Plugin type:** Visual gain-envelope / volume-shaper (sidechain pumping, trance gating, tremolo, multiband ducking, stutters and swells).
- **Inputs:** Sidechain input for the Audio trigger modes; MIDI input for the MIDI trigger modes and NOTES TO SLOTS.
- **Version:** 1.1.0 · **Window:** 1000 × 700, scalable from 50% to 300%.
- **Tooltip languages:** English, Deutsch, Francais, Espanol, Italiano.

THE_GAIN 2 — Draw it, trigger it, hear it move.

Stuck, or found something this manual doesn't cover? Write to me at philspeiser.com/support. I answer support myself.