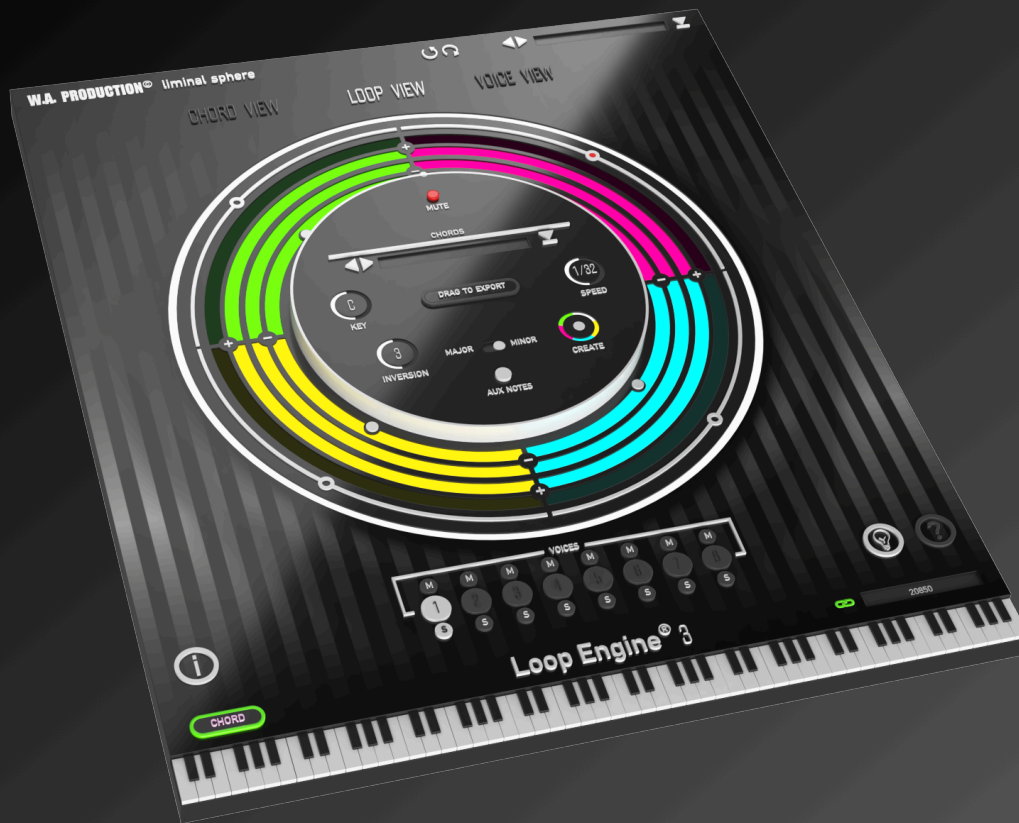




User Manual for Loop Engine® 3

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Welcome to Loop Engine 3!

We're thrilled to present Loop Engine 3, the ultimate MIDI generator crafted to elevate your music production experience. Developed by [Liminal Sphere](#), this powerful plugin allows you to dive into the world of MIDI loops with intuitive controls that inspire creativity and innovation.

With Loop Engine 3, you can create anything from simple to highly complex chord progressions, arpeggios, and melodic lines across multiple instruments. But that's just the beginning. The plugin is designed to generate high-drive, dynamic loops that serve as the backbone for larger arrangements—or stand alone as the main element, with automation and real-time modulation for intense buildups.

At its core, Loop Engine 3 is built for musicians who love loops. Whether you're crafting simple note progressions or intricate arrangements, this plugin seamlessly generates captivating patterns based on the chord shapes and rules you select. It serves as your all-in-one solution for constructing rhythmically engaging loops that blend repetition with variation.

The fluidity of musical elements is reflected in Loop Engine 3's unique circular design, symbolizing how loops connect back to their beginnings. With a multi-layered architecture, you can explore the fine details of your loops or step back for a broader view, much like adjusting the settings on a microscope.

What's New in Loop Engine 3:

- **Graphical Interface and Workflow Optimization:** Experience a streamlined interface designed for a smoother user experience.
- **Direct View Switching:** Seamlessly transition between different views (LOOP, CHORD, VOICE) for efficient navigation.
- **Voice Selection:** Easily select individual voices from a horizontal row at the bottom of the interface.
- **Improved Listener Connection Process:** The automated connection process within the Listener is now more intuitive and visually appealing.
- **Note Length Modification (Rhythmic Shaping):** Stretch or shorten individual notes to craft complex rhythms, up to the entire length of a loop.
- **Temporal Offset (SHIFT):** Fine-tune the micro-timing of notes for enhanced rhythmic precision.
- **General Undo Function:** Effortlessly revert changes with the new undo functionality.
- **POLY Function Optimization:** Enjoy smoother handling of complex polyrhythms for unique listening experiences.
- **Enhanced Help:** Access more guidance from the start to maximize your experience with the plugin.

Loop Engine 3 is more than just a plugin; it's your creative assistant and live application, allowing you to hear changes in real time. With routing options for multi-track playback, integrating it into your DAW project has never been easier. Get ready to embark on a creative journey with Loop Engine 3 and unlock a world of musical possibilities!

For Those Who Don't Read Manuals

Connecting Loop Engine 3

You must connect Loop Engine 3 to a sound generator, as it does not produce sound on its own. It needs to be routed through a Digital Audio Workstation (DAW). For instructions on how to do this in most major DAWs, visit our [online help page](#).

System Overview

The complete system consists of two plugins: Main and Listener. The Main plugin allows you to control a polyphonic VST instrument, enabling you to create a wide range of sounds and effects. The Listener comes into play when you want to build loops from multiple instrument layers. It is a very advanced tool, and we recommend setting it aside initially to explore the functionalities of the Main plugin.

Getting Started

Our [online help page](#) also provides plenty of information to get you started with the software, including routing instructions for various DAWs, tutorial videos, and workflow guides. Make sure to take advantage of these resources!

Factory Presets

Loop Engine 3 comes with several factory presets that allow users to learn and experiment, ranging from very simple to highly advanced.

Engaging with the Software

Understanding the basic setup to achieve your first sound output is essential for engaging with the initial steps. After that, everything flows smoothly, making the creative process with Loop Engine 3 easy and enjoyable.

Loop Engine 3 offers many capabilities that may not be immediately apparent. To fully harness its potential and create intense listening experiences, it's important to familiarize yourself with its internal logic and how it operates.

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💡 We have packaged loop demo sessions into factory presets, ranging from very simple for beginners to truly complex, allowing users to explore the full capabilities of the plugin with pre-made arrangements and a minimal learning curve.
.....

The architecture of Loop Engine 3 is extremely powerful, although it involves a certain level of complexity. However, as you dive deeper into it, you'll find that it beautifully captures the multidimensional, layered, and dynamic nature of creating intricate loops. This intuitive design allows you to explore and experiment with your sound in a way that feels both natural and rewarding.

Therefore, we do recommend reading the user manual, which covers all features and functions—from basic to advanced—so you can get the most out of your experience with the software and create truly amazing music.

Creating Dynamic Loops with Loop Engine 3: Key Features and Techniques

With Loop Engine 3, users have the tools to craft massive, powerful loops through a modular system. Here's how it enables your creativity:

- **High speed:**
The system allows users to create loops at extremely high speeds, facilitating quick, complex rhythm construction. This is ideal for high-energy tracks or genres requiring fast, repetitive beats.
- **Multiple elements:**
Users can layer numerous rhythmic and melodic elements into a single loop. This ensures a rich, full-bodied sound, where individual layers can interact with each other to form intricate textures
- **High drive through temporal micro-tuning:**
The SHIFT function introduces subtle variations in timing, infusing loops with dynamic energy. These micro-adjustments to note placement create a sense of drive and forward momentum in the music.
- **Multi-layered loops:**
The architecture supports the use of multiple layers (e.g., drums, bass, synth, etc.), allowing different sonic elements to coexist and interact. This results in deep, textured soundscapes where the complexity of the loop grows with each additional layer.
- **Micro changes in real time:**
Users can make slight, real-time adjustments to various parameters (such as timing, volume, or pitch). These micro-changes keep loops fresh and evolving, preventing them from sounding static or repetitive over time.
- **Voices unmute/mute in sequence:**
Individual voices within a loop can be muted or unmuted in a pre-defined sequence, allowing for dynamic arrangements. This can be used for building tension, creating drops, or emphasizing specific sections within the loop. By utilizing parameter automation, you can create dramatic buildups and drops in real time.
- **Note editor for percussion and short (fixed/unchanging) note patterns:**
Loop Engine 3 includes a note editor specifically designed for percussion and short, repeating note patterns. This editor allows for precise control over each hit or note, making it easy to create tight, consistent rhythms.
- **Intertwined POLYs:**
The POLY function allows for the layering of polyphonic sequences, where multiple notes or rhythms are played simultaneously. In Loop Engine 3, these POLYs can be intertwined, meaning that different polyphonic sequences interact with each other to create complex, evolving patterns.
- **Long loop sequences:**
With all of these features combined, Loop Engine 3 is capable of creating long, multi-layered loop sequences that remain engaging over time. These sequences are ideal for genres where loops form the backbone of a track, such as techno, house music, and hip-hop.

Tips and Tricks for Sophisticated Loops

Regardless of how tonally or rhythmically complex loops are constructed or evolve over time, they often serve as the rhythmic foundation for more extensive musical arrangements. When designing effective loop architecture, it's essential to adhere to a few fundamental structural principles:

Don't Overdo It — Keep It Simple!

Minimalism is key when placing elements, like notes, within your loops. A clean, spacious arrangement often leads to a more engaging and dynamic sound. Overloading your loops with too many elements can make them feel cluttered and less effective.

In our demo session, we intentionally push the boundaries a bit to showcase the full range of features. This session is included as a factory preset in the software—along with much more minimalistic versions for you to explore. Start simple, then build up as needed!

Tonal Elements – Use with Caution:

While many users will likely gravitate toward chords, harmonic progressions, and tonal structures, it's important to stress that tonality in Loop Engine 3 should be used sparingly. Loop Engine 3 is designed as a 'Techno Machine,' where tonal elements take a backseat to rhythm, layering, and real-time modulation. The primary focus is on creating dynamic, evolving loops with multiple layers, intricate rhythms, and subtle changes over time. Tonality is there to provide a framework or subtle background, but the real power of Loop Engine 3 lies in its ability to generate complex, rhythm-driven soundscapes. If tonal elements dominate, you risk missing the true potential of Loop Engine 3's loop architecture and rhythmic capabilities.

ABAB Structure – Minimalistic Shifts for Maximum Impact:

One of the key approaches within Loop Engine 3's loop architecture is the strategic use of the ABAB structure. This involves alternating between two different elements—be it chord changes, rhythmic patterns, or even structural components—in a repeating sequence. The beauty of this method lies in its simplicity: rather than overloading the loop with constant changes, the focus is on making subtle, minimal shifts that create a sense of progression without overwhelming the listener.

For example, a basic ABAB chord progression might alternate between two harmonic states, but the real power of this lies in restraint. These changes are intended to add just enough variation to keep things engaging, without losing the hypnotic, driving force that defines a solid loop. The same principle can be applied to any other structural or rhythmic elements. Instead of stacking too many ideas, this technique allows you to maintain clarity and focus, while still introducing an evolving sense of movement.

By using this minimalistic approach, you can draw the listener deeper into the rhythm and overall flow, preserving the techno-machine's core identity where rhythm, layering, and micro-adjustments dominate.



Limitless Voices, Infinite Possibilities:

It is possible to open and synchronize multiple instances of Loop Engine 3 simultaneously. This allows you to manage a virtually unlimited number of voices (depending on your computing power), each triggering different instruments.

System Requirements

Operating systems: Windows 10 and later (64-bit only), macOS 10.15 and later (64-bit only)

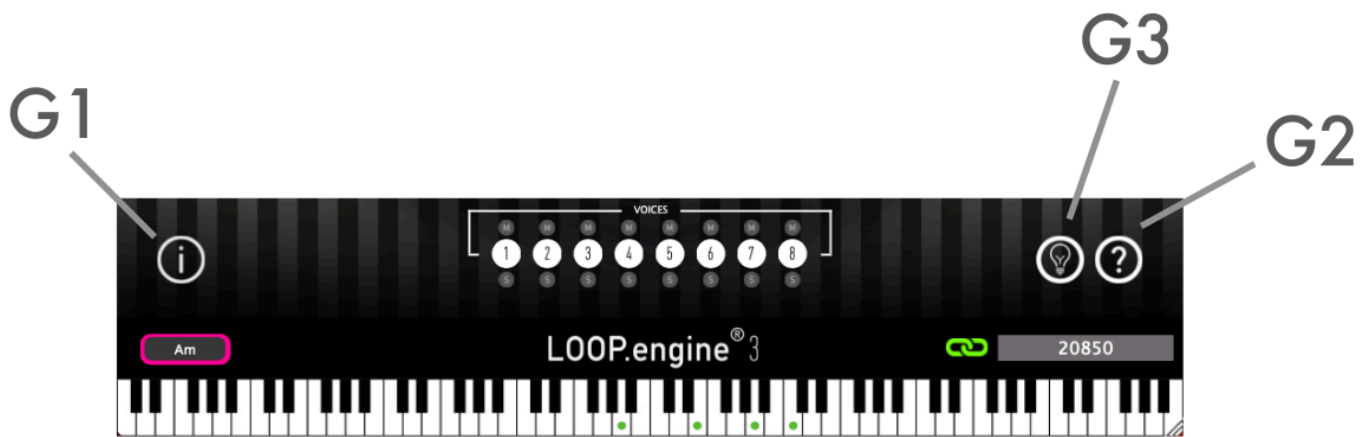
Available interface types: VST, VST3, AU, AAX

Installation and Unlocking

Loop Engine consists of two components: the main Loop Engine plugin and the Listener plugin, which routes MIDI to different tracks in your DAW. Unpack your software, **start both installers** for Windows or Mac, and follow the instructions. By default, all available version formats will automatically be installed. You can also choose which versions you want to install in the process. See the options in the installer window display for custom installation on macOS.

In the trial version, you cannot save your work or export music data to MIDI tracks in the DAW.

To **unlock the full version** of the plugin **with your serial code**, click on the info button (**G1**) and follow the instructions.



DAW Connection and Help

Loop Engine 3 is a MIDI generator, not a MIDI instrument. It outputs MIDI data to trigger other MIDI instruments. To produce sound, it needs to be routed to a DAW, which then activates VST instruments.

💡 Both Loop Engine 3 and the Listener need to be assigned to MIDI or instrument tracks in your DAW via MIDI In. For detailed routing instructions applicable to most major DAWs, visit our [online help page](#). You can also access this page by clicking the lightbulb icon (**G3**).

For a step-by-step tutorial guiding you through the software's features, follow the numbered image tags in ascending order. **You can toggle mouse-over tooltips on and off by clicking the help icon (G2)**, which is activated by default in trial mode.

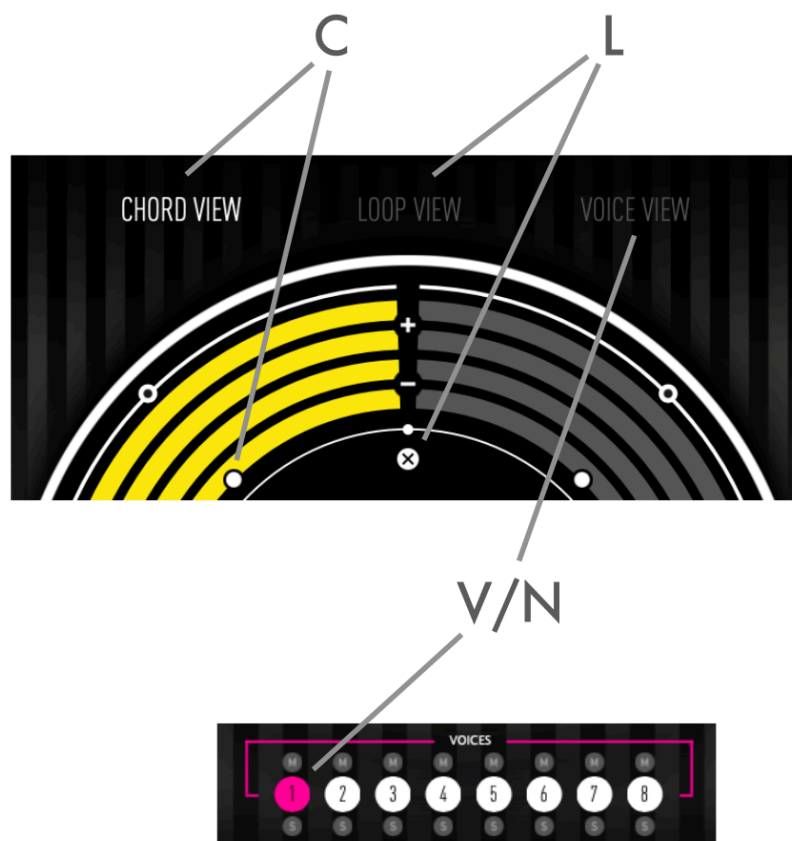
Graphical Interface and Features

To resize the plugin, click-and-drag the resizing handle **(G4)**. Depending on your operating system and your DAW, the handle can be found either on the right or on the left side of the plugin window.

The plugin display can be toggled between three logically interconnected control interfaces: Loop View **(L)**, Chord View **(C)**, and Voice/Note View **(V/N)**. In general, actions in Loop View have a (reharmonizing) effect on the entire loop. Chord View lets you zoom in on single chords and chord notes, and Voice/Note View on single voices and their respective chord or note pattern information. Several voices build Complex Loops.

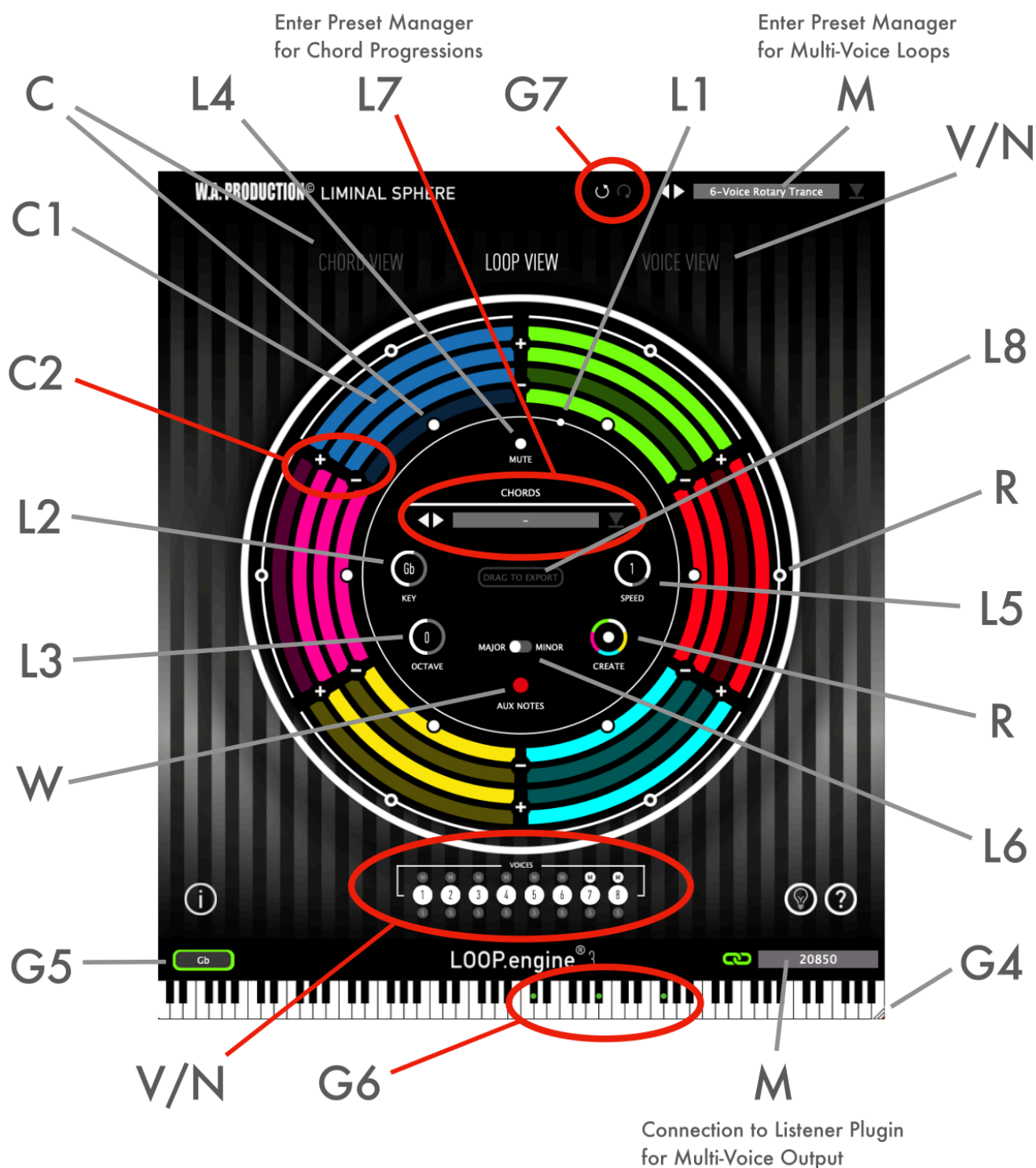
💡 In Loop Engine 3, all elements are tightly interconnected. At the top level, you define general loop properties, like chord progressions, which establish the harmonic framework. On the next level, individual chords can be edited and customized with their own characteristics. Within them, various voices can take the form of chord progressions or note patterns, inheriting traits from the higher layers. Each component impacts the entire system, but it's the voices that control the precise note output—what you actually hear through your DAW instruments. As each layer manages numerous attributes and interacts with others, complexity increases. With some exploration, you can create rich, dynamic loops with incredible depth.

View Selection Panel: Switching between the different views in Loop Engine 3 is straightforward and intuitive: You can easily navigate between the Loop View **(L)** for global control over your entire loop, the Chord View **(C)** for managing individual chords and chord progressions, and the Voice/Note View **(V/N)** for precise control at the single-note level. The selection options are conveniently located above the loop circle, allowing you to transition seamlessly between these views by simply clicking on the respective fields.



Loop View: General (L)

This is the editing interface for the harmonic backbone of the loop, the chord progression.



The chord randomizer (**R**), Voice/Note View (**V/N**), and multi-voice loops/Complex Loops (**M**) features are laid out on the following pages.

💡 On macOS, Option + Click (or Ctrl + Click on Windows) resets knobs and sliders to their default values.

Loop cursor/playback (L1): PLAY and STOP in the DAW starts and stops the loop playback, respectively. The loop can be altered while it is rolling. The loop cursor indicates the sounding chord and shows the exact time positions within each segment.

Key (L2): Defines the general key of the loop. This function transposes the loop between keys.

Octave (L3): Transposes all chords in the loop up or down by octave.

.....
💡 **Key and Octave** can be automated in your DAW. For the necessary setup steps, please refer to the user manual for you DAW.
.....

Mute (L4): Mutes the chord progression underlying the loops. You use this feature to keep the harmonic structure of the loop intact but only play its voices (see 'Voice/Note View').

Speed (L5): Determines how fast chords are played back.

Major/minor toggle (L6): This adjustment determines the key mode for the entire loop. The basis of major and minor harmony is the major and minor scale, respectively. Very simply put, major keys sound 'brighter' or 'more positive', whereas minor keys feel 'darker'. Chords will be derived from the key mode you select.

Chord progression presets/saving (L7): By default, the plugin provides a selection of loop presets as a starting point to work from. Loops can be saved for further editing at a later time. Refer to section 'Preset Manager' for detailed information.

Drag to export (L8): Click and drag MIDI notes of the chord progression in the loop to the MIDI timeline in your DAW. This feature is deactivated in trial mode.

Chord segments (C1): Chords are represented as segments of the loop. A loop can be composed of up to eight chords of equal duration. The minimum loop size is one chord.

Adding and deleting chords (C2): Click on '+' between two chord segments to add a new chord at that position. The added chord will automatically highlight in individual chord editing mode (see section 'Chord View'). Clicking on '-' will delete chords. The chord segment that will be deleted is shown on mouse rollover. Adding a chord automatically switches to Chord View, highlighting the newly added chord.

Chord symbol display (G5) and keyboard (G6): Everything that is actively playing is shown, the exact notes of the chord on the keyboard plus the corresponding chord symbol. When the DAW starts playing, the keyboard will display either the chords of the loop (if active Loop View is selected) or the chords or arpeggios of the respective voice (if Note/Voice View is selected). If the DAW is not in playback mode, the keyboard and chord display will show all live chord or arpeggio changes.

General undo function (G7): Undo actions are supported, allowing you to easily revert changes. However, there are some constraints: You cannot undo actions beyond the following points:

- Loading a preset
- Applying the chord randomizer (CREATE)
- Adding or deleting a chord segment

Once any of these actions are performed, you will not be able to undo previous changes, and the undo history will be cleared.

Insert auxiliary notes (W): This is an optional ‘AI Wizard’. It inserts passing notes in both chord progressions and note lines to create chord segments with ornamentation. This happens wherever it is feasible, even between chords. The effect can range from subtle to striking, depending on the available possibilities. Now, only one note is added with each transition action per voice. This function can be applied to the general chord progression from Loop View and to single voices from Voice/Note View.

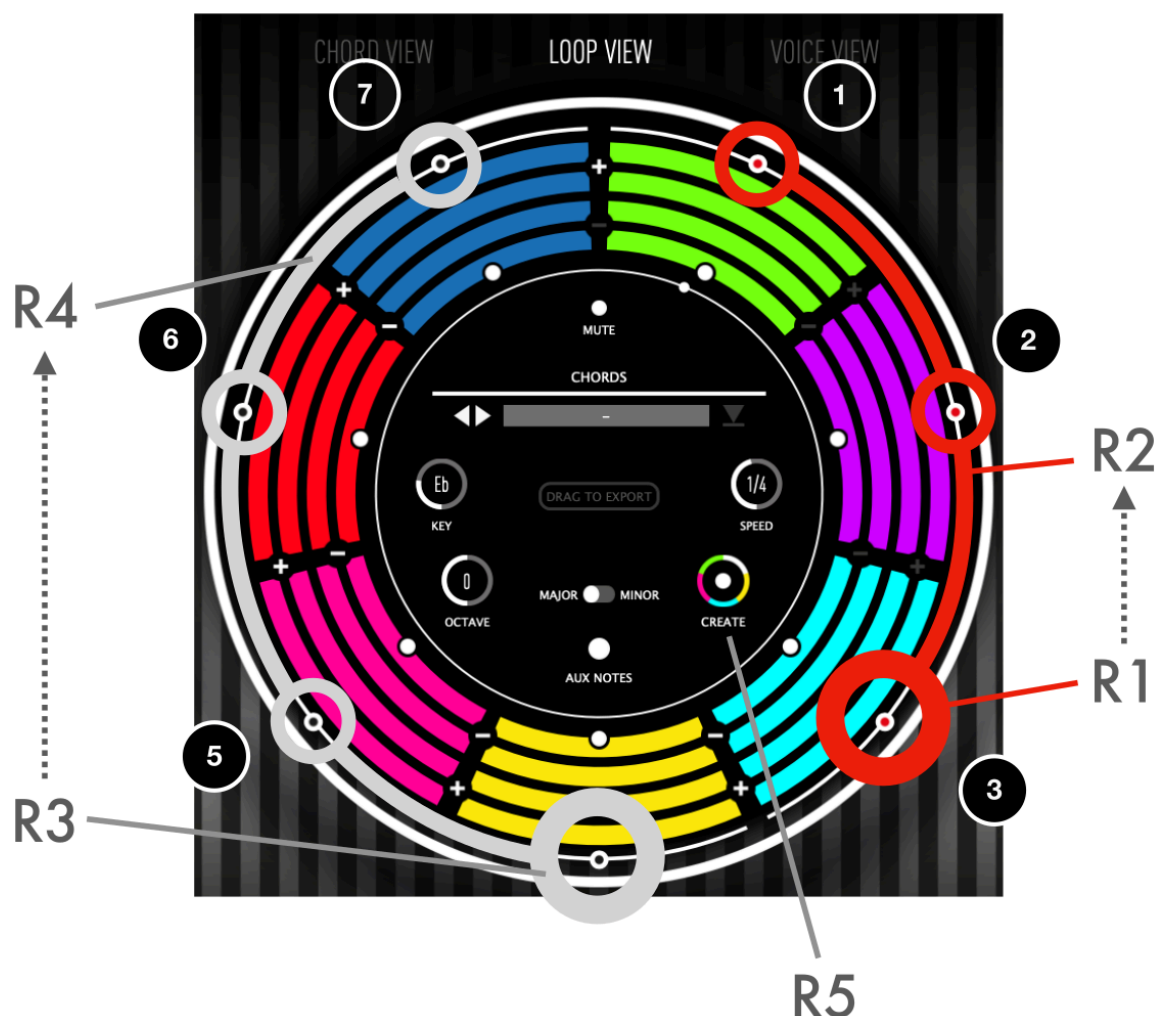
💡 Learn more about this particular AI Wizard, AUX NOTES, in sections ‘Voice/Note View and Complex Loops’ and ‘Multi-Track Capability and Complex Loops’.

The plugin incorporates other AI Wizards as well, although they are more hidden. Examples include functions for balanced voice leading in chord progressions or note layering of chords in different positions.

CREATE, a chord progression generator, can be loosely associated with the AI Wizards, functioning primarily as a semi-intelligent randomizer. Learn more in the following section.

Loop View: Randomizer (R)

This feature was designed to help users build a loop gradually, incorporating ‘elements of surprise’ to boost creative inspiration with maximum control over the process. The randomization feature seamlessly interacts with all the other layers of control elements in real-time.



Randomization in Loop Engine generates musically pleasant chord progressions over the complete loop or only parts of it. It is limited to simple-chord mode **(C6)** without added tension notes. Such randomized chord sequences should only be regarded as creative starting points. With the Randomizer, you set the harmonic base and use additional advanced functions to taste.

You can lock or unlock chord segments for randomization by clicking on the outer ring's dots. You can have all chords of the loop randomized, or just a selection. All chord segments are unlocked by default, which is shown by their outer dots: Locked segments show red dots.

Locking chords: You can only lock chords in clockwise order, starting from the very first chord in the loop. For example, take a loop of seven segments, as shown to the right on this page. When you click the third segment's dot **(R1)**—provided all segments were unlocked before—only chords ④ through ⑦ get randomized and chords ① through ③ remain unchanged **(R2)**.

Unlocking chords: The same logic applies to unlocking chords: if you click an unlocked segment's dot **(R3)**, all chords from this chord to the last in the loop are unlocked **(R4)**. All chords before that segment in the loop are locked and cannot be altered by the randomizer.

The ability to add and delete chord segments changes dynamically with the number of locked/unlocked segments.

Create (R5): This 'magic button' activates the randomization process for the unlocked chords. The animation effect shows which loop segments get altered.

Chord View (C)

This is the editing interface for individual parameters of single chords. Click on the white dots in the chord segments to enter Chord View and to switch between the chords you wish to edit **(C)**. The selected chord is highlighted in color **(C3)**.

Switching to Loop View (L): To exit Chord View mode and switch to Loop View, click on 'LOOP VIEW' on the View Selection Panel or the 'x' symbol.

For information on how to work with polyphonic note patterns in Voice/Note View **(N)**, see section 'POLY Mode'.

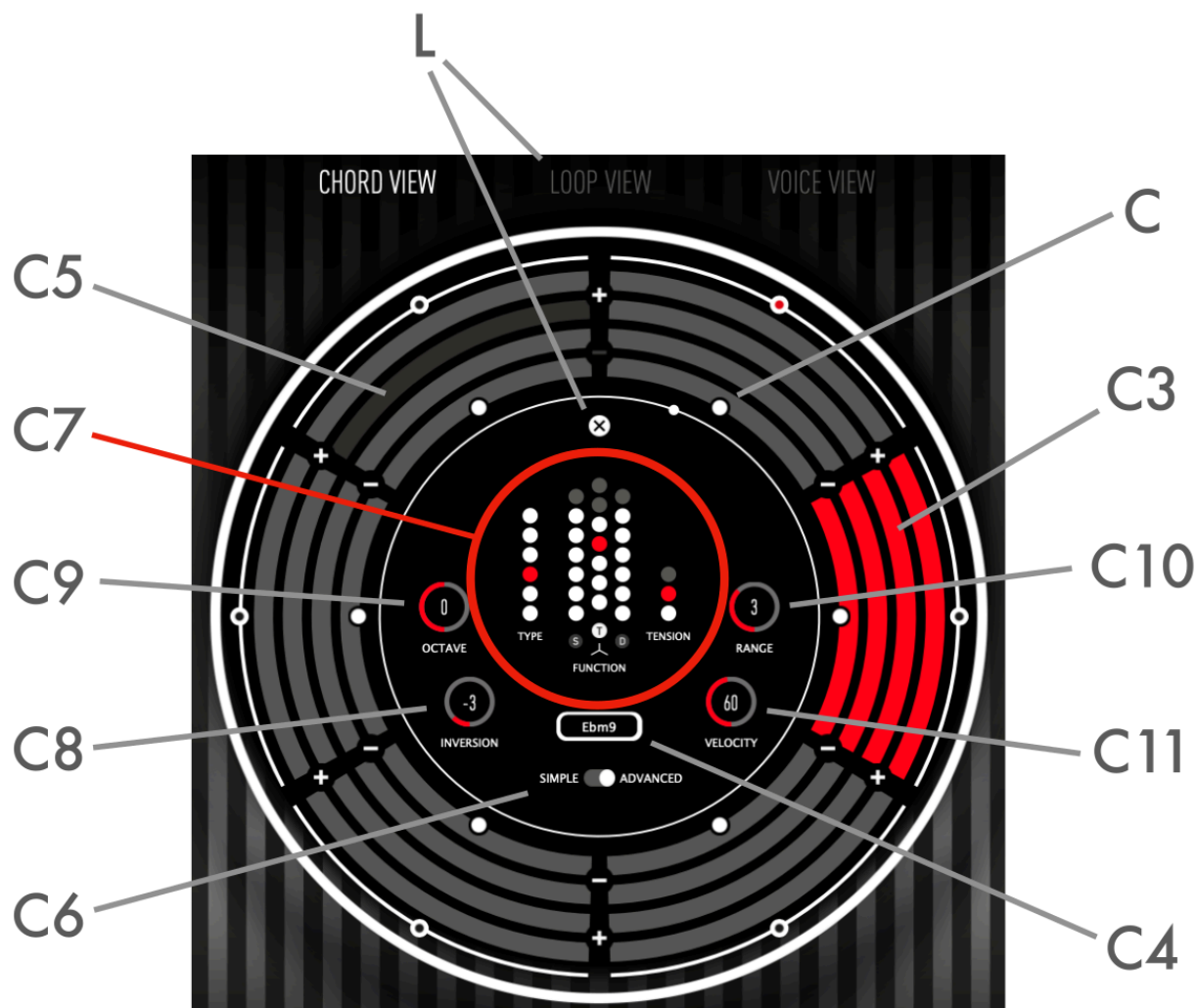
When DAW playback is halted (STOP), every change applied to a chord—including adding new chords—yields an acoustic preview of the result by the assigned MIDI instrument.

Chord symbol display (C4): Provides the exact chord symbol of the chord being edited.

Individual chord notes—mute and unmute (C5): The four curved lines of a chord segment represent the four notes of the respective chord. The innermost line represents the lowest note, and the outer line stands for the highest note. Clicking on a note line mutes or unmutes the corresponding note. Activated note lines appear brighter in color.

💡 Chords in the loop progression are laid out in closed, mixed, and open positions. This follows voicing optimization for the smoothest listening experience, controlled by a hidden AI Wizard.

Chord modes (C6): Choose simple or advanced mode to edit chords. In simple mode, you can only select the degree of the chord. Advanced mode allows you to specify the nature of the chord and add a tension note.



Chord function and complexity (C7): Chords are organized in a matrix based on their *tonal function* (Tonic, Subdominant, and Dominant) and *complexity* (from bottom to top, representing the degree of their probability in the progression). In the simple mode, the selection of TYPE and TENSION is disabled (C6).

Inversion (C8): Rolls the chord up or down by moving its highest or lowest note by octave, respectively.

Octave (C9): Transposes the selected chord up or down by octave, not affecting other chords in the loop.

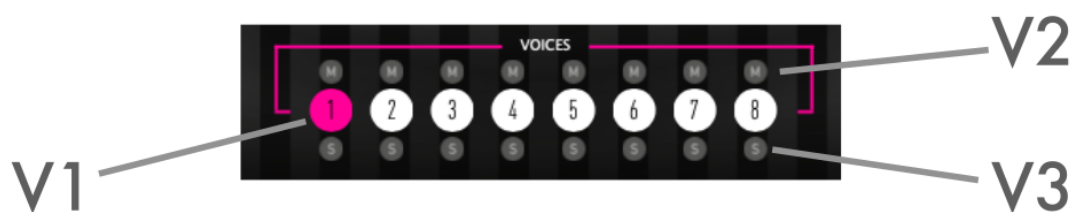
Range (C10): Keeps the lowest note in place while pushing the highest note up or down, spreading out the chord notes or placing them closer together.

Velocity (C11): Adjusts the volume of individual chords.

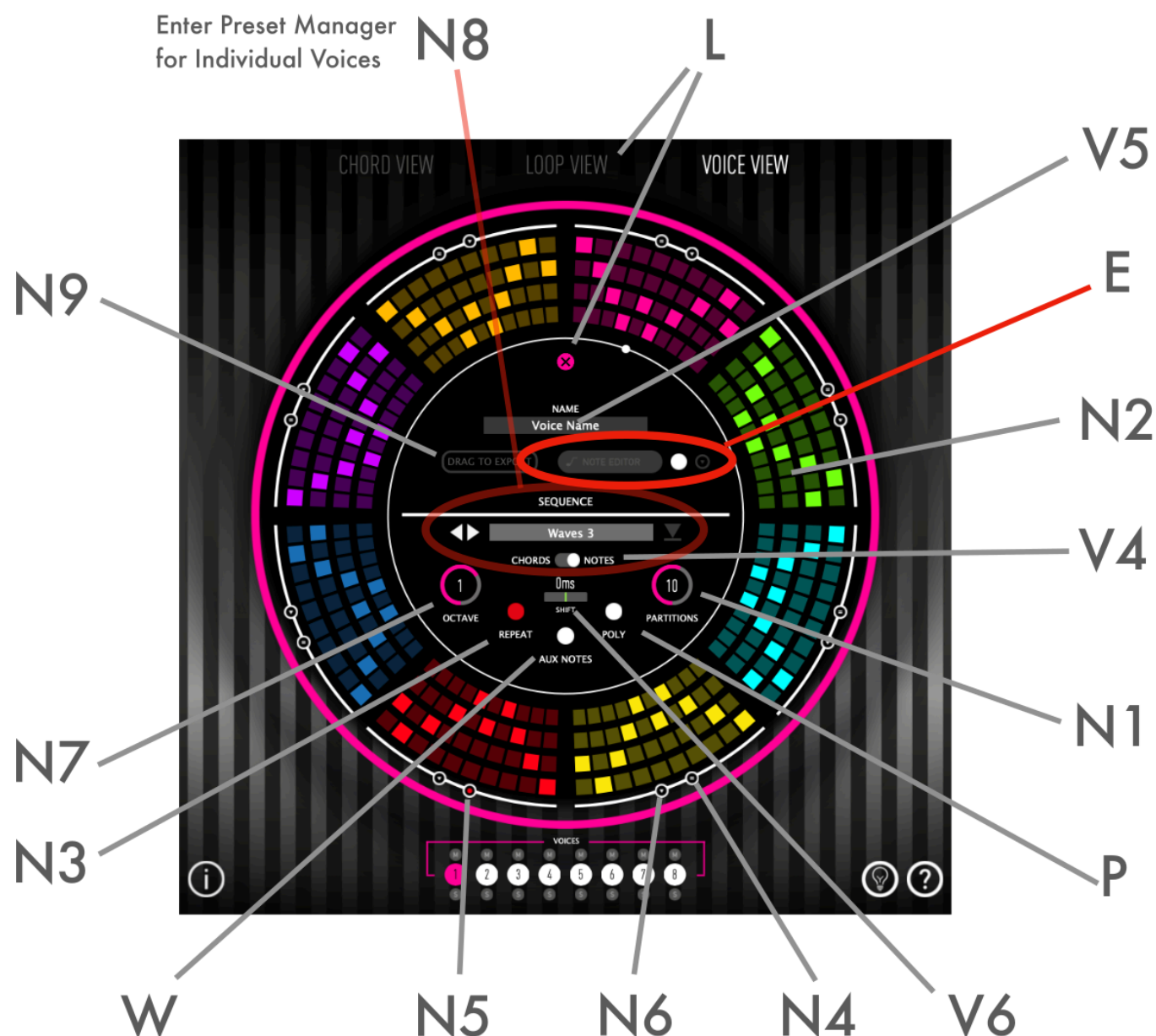
Voice/Note View and Complex Loops (V/N)

Voices represent the actual output when it is routed through the DAW to a MIDI instrument. Loop Engine can output up to eight voices simultaneously to build Complex Loops. Each voice represents either chord segments or note patterns. Note View splits chord segments into up to sixteen partitions and plays back step patterns of chord notes, from varying melody lines to polyphonic arpeggios.

In Loop Engine 3, the option to select individual voices has been optimized for improved workflow compared to previous versions. This selection is now conveniently positioned beneath the loop circle. Each voice corresponds to lines in distinctly different colors that encircle both the loop circle and the voice selection area, making it easy to identify and manage each voice visually.



Click on one of the voice selection buttons (**V1**) to switch from Loop View (**L**) or Chord View (**C**) to Voice/Note View. With Voice/Note View activated, each voice selection button and corresponding outer loop ring highlight in a different color representing the respective voice. Deactivate a button to leave Voice/Note View and switch back to the modes for chord editing.



Voice solo mode (V3): Click the button below a voice selection button to solo the corresponding voice.

Chords/notes mode (V4): Voices can be set to play either chords or note patterns. In chords mode, the voice will play the chord sequence specified in Loop View. In notes mode, you can define a note pattern (arpeggio) specific to a voice.

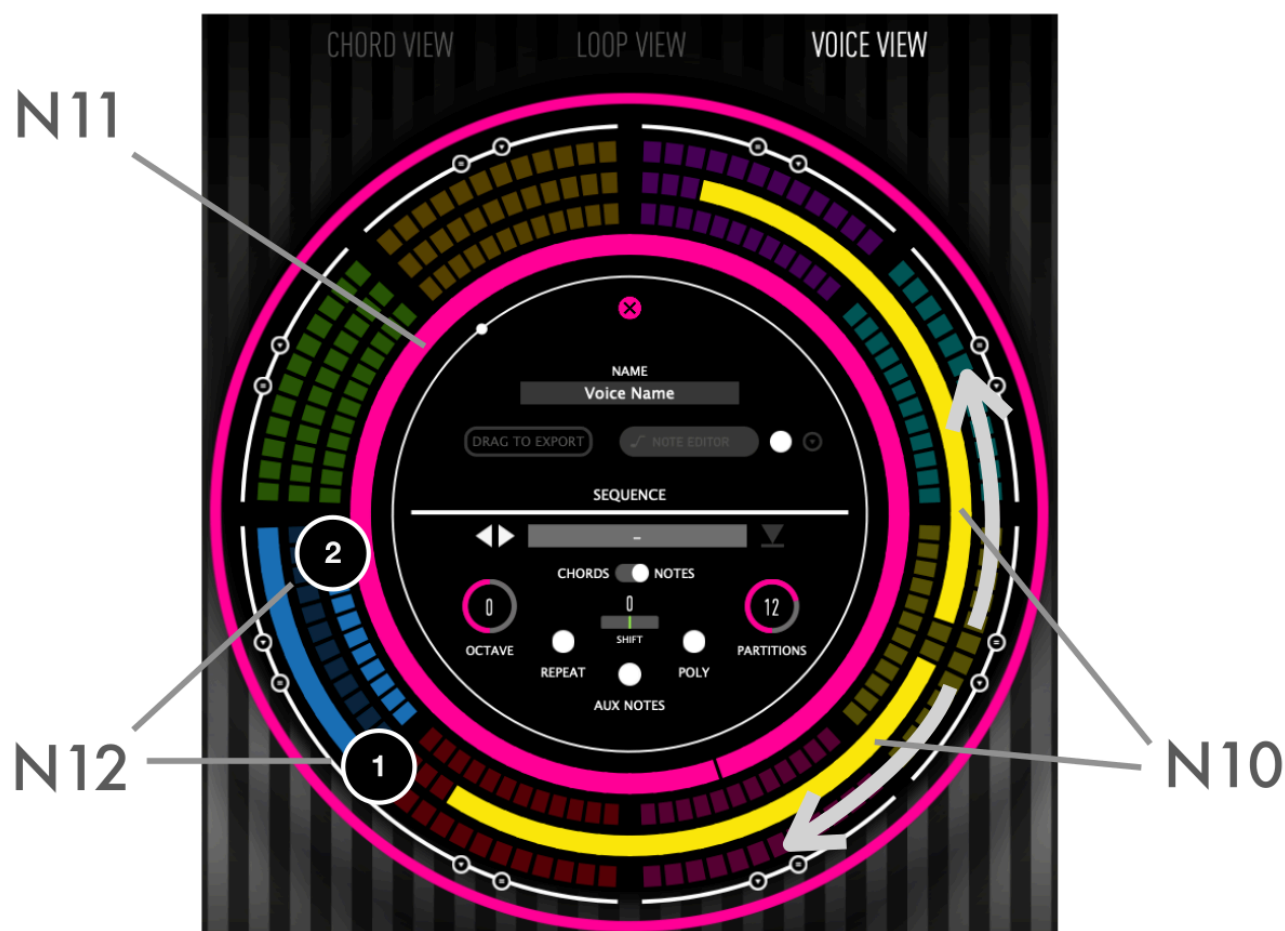
Voice name (V5): Assign a name to the voice. These voice names will be saved along with a multi-voice loop. You have additional saving options by accessing the preset editor (see **N8** below and section 'Preset Management System').

Temporal Offset (V6): Calibrate rhythmic precision and fine-tune the micro-timing of note onsets with precise adjustments. You can shift notes forward or backward, allowing for greater flexibility in rhythm creation.

Partitions of chord segments (N1): Choose between 2 and 16 steps.

Individual notes (N2): Clicking on a note element mutes or unmutes the corresponding note. Activated note elements appear brighter in color.

Rhythmic Variation through Note Length Adjustment



- **Merge Individual Notes (N10):** With click and drag, you can stretch or shorten notes in both directions. The beginning of a note is set by clicking within a note field. Dragging along the loop circle, either clockwise or counterclockwise, determines the note length.
- **Sustained Notes/Drones (N11):** Notes can be extended to last the entire length of a loop.
- **Split Merged Notes into Individual Notes (N12):** On macOS, hold Option and click a note; on Windows, hold Ctrl and click a note. This will split the longer note into individual notes, each with the length of one partition. The individual notes will be adjusted tonally to match the respective chord segment.
- **Delete merged notes:** When you click on a merged note, it gets deleted—regardless of its length. If you drag the note with the mouse for longer than the entire loop length, it will be deleted.

Repeat note pattern over entire loop (N3): When enabled, changes applied to any segment will automatically overwrite all the other segments with the same pattern.

💡 The quickest way to mute all notes in a voice is to load the voice preset labeled 'Empty' from the Preset Manager (N8) or to activate REPEAT and mute all notes within a segment, effectively deleting all notes from that voice.

Copy-and-paste feature applied to single note pattern segments:

- **Copy button (N4):** Selects the note pattern segment you wish to make copies of (N5).
- **Paste button (N6):** Overwrites this segment with the copied segment.

Octave (N7): Transposes the respective voice up or down by octave.

Note pattern presets/saving (N8): Load factory presets and save your own note patterns. These note patterns tonally agree with the chord changes in the loop. Refer to section 'Preset Manager' for detailed information.

Drag to export (N9): Click-and-drag MIDI notes of the voice (chord progression or note pattern) to the MIDI timeline in your DAW.

Note Editor System (E): With the note editor, it becomes possible to place notes freely and polyphonically. For a detailed description, refer to the Note Editor section.

POLY Mode (P): Applies note patterns to the loop which are longer or shorter than the chord segments. For more information, refer to the POLY section.

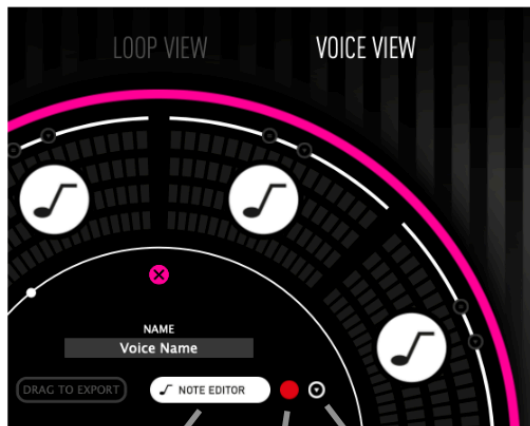
Insert auxiliary notes (W): Similar to chord progressions in Loop View, activating this AI Wizard allows the insertion of passing notes for voices. For more information about this feature, refer to pages 5 and 6.

💡 Like everything in Loop Engine, this function operates in real-time. You can export MIDI from voices with AUX NOTES applied, but you cannot copy notes generated by this function to the Note Editor (E). Refer to the section 'Multi-Track Capability and Complex Loops' to learn how to set up the Listener Plugin for AUX NOTES output to instruments in the DAW.

Note Editor (E)

With the Note Editor, you can create polyphonic note patterns, such as melodies, bass lines, arpeggios, and rhythm/percussion patterns, using notes that go beyond the limitation of chord notes.

💡 The Note Editor is designed for creating fixed patterns: The note pitches in the Note Editor remain unaffected by the harmonic environment in the loop. The Merge Notes function (**N10 - N12**) is not available in the Note Editor.



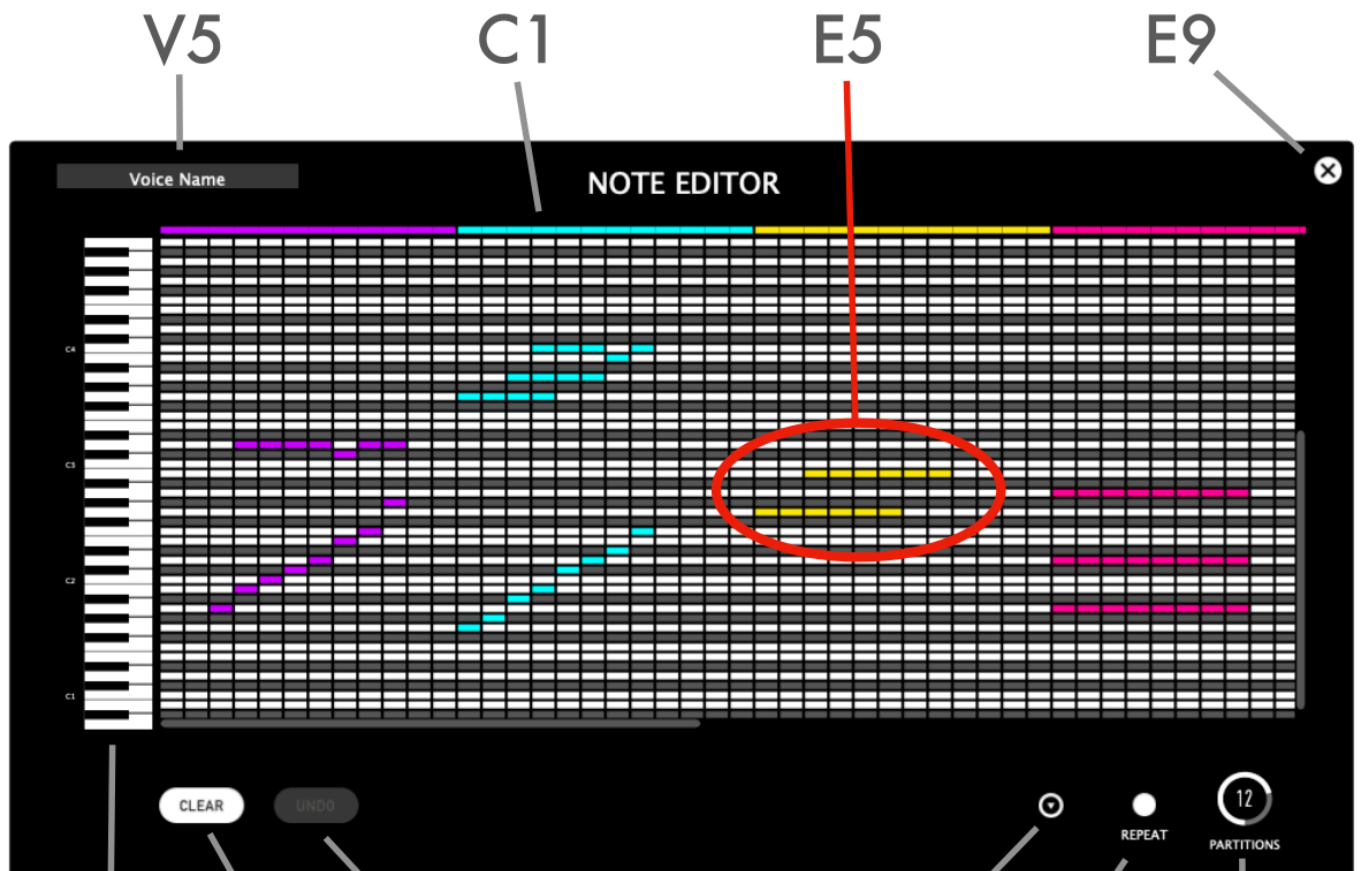
E2 E1 E3

Activate the note editor system (E1): To work with the Note Editor, you need to turn on the feature from Voice/Note View. You'll see note symbols placed in the chord segments around the circular loop area. When the system is activated initially, the Note Editor opens automatically.

Open the note editor (E2): Click here to enter the Note Editor. On the following page, you will find a description of how the Note Editor works.

Export note patterns into the Note Editor (E3): Click on this button if you want to export the already existing note contents from the voice to the Note Editor.

This is a representation of the Note Editor:



E4 E7 E8

E6 N3 N1

In the top left, you will find the voice name (**V5**), matching the voice name of the respective voice in Voice/Note View, from which the Note Editor was opened. The colored lines (**C1**) indicate the association of notes with the duration of chord segments in the loop.

Keyboard (E4) and piano roll (E5): The keyboard on the left side displays note pitches and octave intervals. To display the entire range, you can scroll up or down, as well as left and right for horizontal representation if the chord segments become too large for the full display. On the piano roll, individual notes can be clicked on or off.

Import note patterns into the Note Editor (E6): Just like exporting notes from the voice to the Note Editor (**E3**), click on this button if you want to import the already existing note contents from the voice into the Note Editor while inside the Note Editor.

Repeat note pattern over entire loop (N3): The behavior is the same as in Voice/Note View. When enabled, changes applied to any segment will automatically overwrite all the other segments with the same pattern.

Partitions of chord segments (N1): Here, too, the behavior is the same as in Voice/Note View. Choose between 2 and 16 steps.

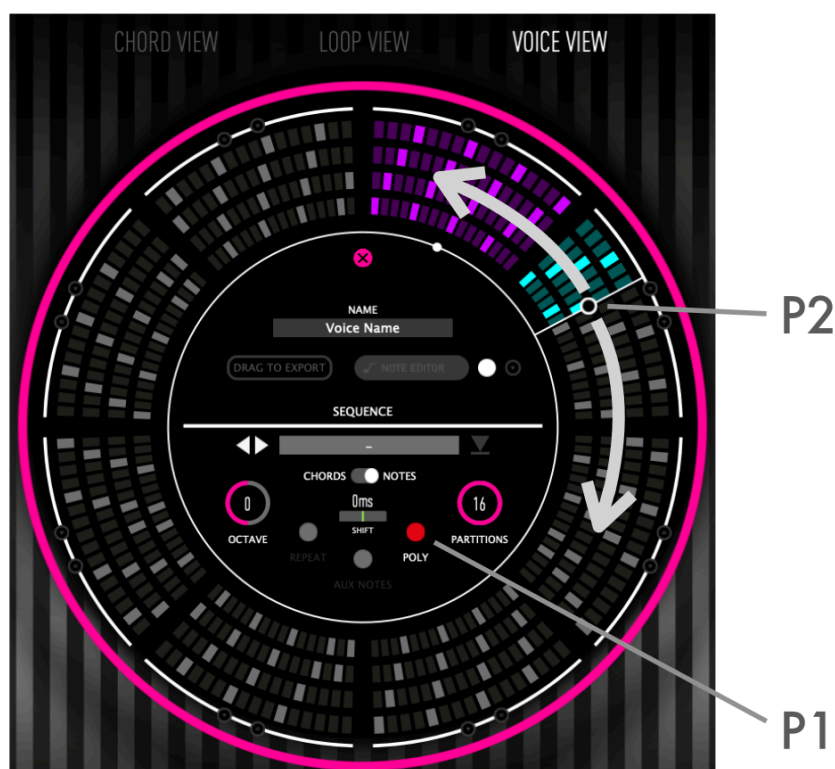
Clear all notes (E7): Delete all notes from the entire display in the Note Editor.

Undo clear (E8): Reverses the clear notes action.

Exit (E9): Leave the Note Editor and return to the respective voice in Voice/Note View.

POLY Mode (P)

POLY allows you to make note patterns that are longer or shorter than the standard size of the chord segments, e.g., a six-note pattern over five-partition segments. This allows for the generation of tonal polyrhythmic patterns. As always, you can make and hear all changes in real-time.



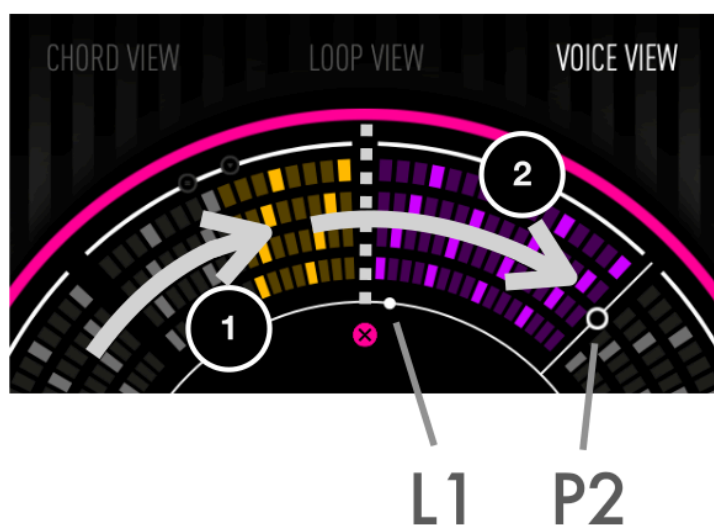
Enable this mode by clicking on the POLY button (**P1**). Modify the length of the repeating pattern by dragging the handle (**P2**) clockwise or counterclockwise. The length of a Poly segment can span from two partitions of a chord segment to the theoretical maximum length of the entire loop. In this mode, instead of constructing arpeggios for each chord, you can create a pattern that will repeat indefinitely.

💡 Take a close look at the plugin display to understand exactly what's happening. Then try to replicate that particular POLY setup. Experiment with this feature a bit, and you'll quickly grasp how it works.

If not configured differently, POLY displays a default note pattern that will show beyond the length of the first chord segment. Every change you apply to the POLY segment will automatically be applied to all POLY segments showing in the loop. Even though POLY segments are displayed consecutively for the entire loop, they actually constitute a single forward-rolling segment.

During playback, the sounding segments will highlight moving forward. When the end of the full loop is reached, the POLY segment continues to roll over in endless continuation, as shown here:

When the cursor (**L1**) moves over the end of the loop, the POLY segment is not clipped but continues to roll forward in its respective timing, as can be observed by the forward movement of the handle (**P2**).



Think of POLY not only in terms of tonality but mainly rhythm, and keep it simple. Imagine two voices: one voice playing the same note on every fifth or sixth beat over a four-quarter beat on the other voice, which instantly creates an appealing polyrhythmic structure. Add dynamic chord control, and the possibilities increase exponentially!

💡 Properly applied, POLY is particularly suitable for live performances. In EDM, simple polyphonic patterns are often used. Such patterns are best generated and experienced in real-time. With the flexibility of Loop Engine, entirely new possibilities open up in this regard.

Listener Plugin: Multi-Track Capability and Communication (M)

This section covers the exciting capabilities of the Listener plugin (ListenerLoopEngine) used with Loop Engine. Each of the eight voices in Loop Engine can be played back through any number of MIDI channels in your DAW. Once you set your loops and voices in the main plugin, load the Listener on the desired instrument track. The Listener will receive voice information from the main plugin and convert it to MIDI, allowing you to play your virtual instruments. The eight voice numbers **(V2)** correspond to the eight listener channels **(M4)**.

Refer to the relevant page for specific routing instructions tailored to your DAW, or visit our [online help page](#) for additional information on routing in most DAWs.



You can open and synchronize multiple instances of Loop Engine 3 simultaneously, enabling you to manage a virtually limitless number of voices, contingent upon your system's computing resources. Each instance can independently trigger different virtual instruments, allowing for intricate and dynamic compositions. This multi-instance capability enhances the flexibility and scalability of your arrangements, empowering you to explore complex layering and rich soundscapes without limitation.

Automatic Connection

When the main plugin is loaded, it searches for an available port starting at 20850. The selected port number will be displayed in the footer of the plugin **(M1)**. Each instance of the main plugin uses a different port number, requiring no user action within the main plugin itself.

When the Listener is loaded, it attempts to connect to the default port (20850). If the connection fails, it will periodically retry until successful. If the Listener cannot connect to the default port despite the main plugin being loaded, it likely means the main plugin is using a different port.

To establish communication between the main plugin and the Listener, you need to manually enter the port number being used by the main plugin into the Listener.

Manual Connection

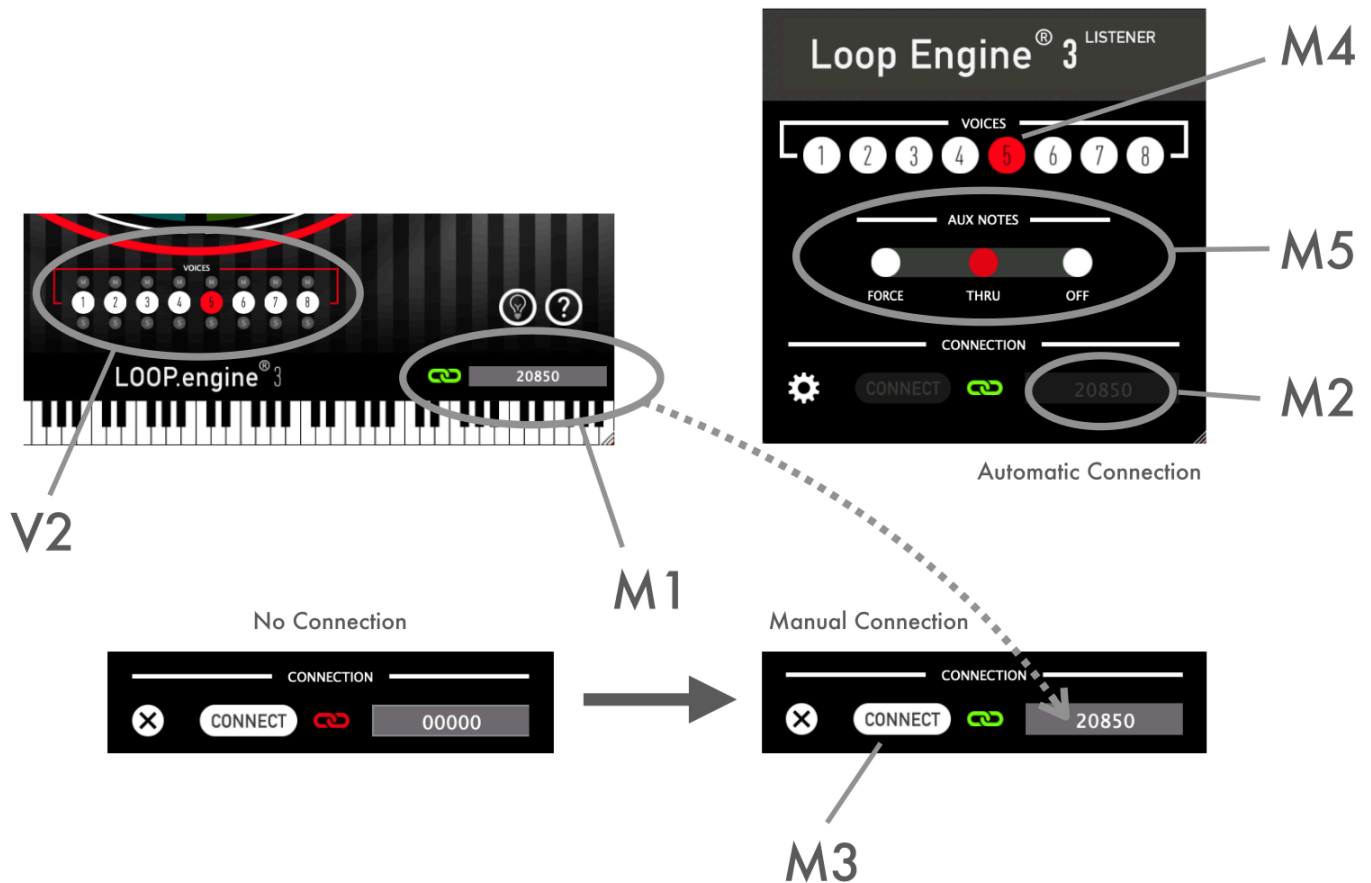
Follow these steps:

1. Click the gear button in the Listener.
2. Enter the port number displayed in the footer of the main plugin into the text field **(M1 → M2)**.
3. Click the CONNECT button **(M3)**.

Once the port numbers match, the connection sign will turn green, indicating a successful connection. The CONNECT button will be grayed out, and no connection number will be displayed.

In scenarios where multiple instances of the main plugin are loaded, only one instance will typically use the default port. All Listeners will connect to that instance when loaded. For any specific instance you wish the Listener to connect to, you must manually set the corresponding port number.

To activate a new instance of Loop Engine or make changes to the settings, click the Settings button, manually enter the new connection number, and click CONNECT.



The behavior of AUX NOTES can also be manipulated via the Listener (**M5**), presenting three distinct states:

THRU (default setting): The Listener mirrors the main plugin's behavior regarding auxiliary notes. If AUX NOTES is enabled on the voice monitored by the main plugin, the Listener will replicate and include passing notes accordingly.

FORCE: The Listener consistently generates passing notes in its output stream, independent of the main plugin's AUX NOTES setting.

OFF: The Listener generates no passing notes, irrespective of the main plugin's AUX NOTES setting.

💡 To experiment with this feature, choose a complex loop from the selection of factory presets (we suggest one with only two voices). Closely examine how the different voices are arranged to gain a deeper understanding of Loop Engine's clockwork mechanisms. You'll notice that the note patterns in each voice are intentionally kept simple to avoid cluttering the loop arrangement. Always remember: less is more!

All the parts for complex loops are stored and can be searched for in the preset manager system, which is covered in the following section.

Preset Management System: Searching, Tagging, and Saving

It is possible to search for, tag, and save presets or custom loops from the different control layers, i.e. views. This applies to complex loops as well as all individual parts of loops. Depending which view you activate the preset manager from, the focus will be on the respective

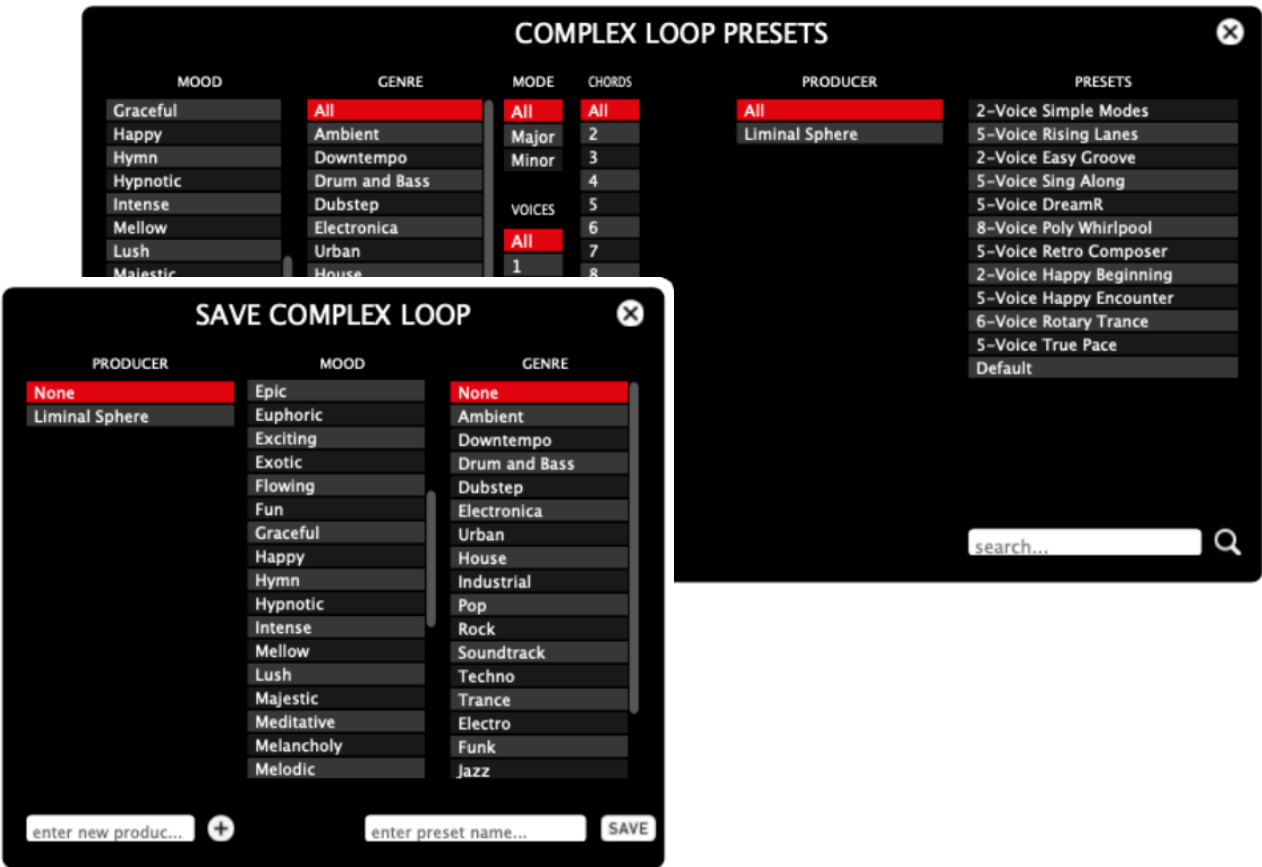
layer. The individual layers of the preset manager are logically interconnected in the same way as the loop layers.

This means that each loop layer—Loop View, Chord View, and Voice/Note View—has its own input field for accessing the Preset Manager at that specific layer. To save an entire loop with all elements across all layers, use the Preset Manager Access in the top-right corner of the Main Plugin (**M**). If you only want to save a single Voice, use the centrally located input field in Voice View (**N8**). The same applies to chord progressions: use the central input field in Loop View to save them (**L7**). While this setup might seem a bit complex at first, it makes sense when you consider how many different elements make up a complex loop. Managing these elements separately, while still being consolidated in the global Preset Manager, allows for a high degree of flexibility.



Enter the preset manager through the graphical elements shown on the left. Click on the preset selection bar (**1**) to activate the preset browser. With the arrows (**2**), you can navigate through presets without opening the browser. Save and edit loops and loop elements in the preset editor (**3**).

Accessing the features in the windows should be self-explanatory. For additional information, watch our video dedicated to the preset management system.



Special Instructions for Operation with Logic Pro

Logic Pro exhibits certain nuances in handling MIDI data streams that can impact the workflow with Loop Engine:

Optimal usability is ensured only when the track of the main plugin is selected.

When reopening a project, some voices may become inactive because the channels are not aware that they are receiving MIDI notes. Logic does not register this traffic as activity, and as a result, it won't perform calculations for the instruments until you manually select the tracks again.

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