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NATIVE INSTRUMENTS

THE FUTURE OF SOUND

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1. Disclaimer

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MASCHINE Software version: 2.14 (7/2021)

Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.

2. Document Conventions

In this document the following formatting is used to highlight useful information:

<i>Italics</i>	Indicates paths to locations on your hard disk or other storage devices
Bold	Highlights important names, concepts, and software interface elements.
[Brackets]	References keys on a computer's keyboard

The following three icons represent different types of information:



The **light bulb** icon indicates a useful tip, suggestion, or interesting fact.



The **information** icon highlights important information that is essential for the given context.



The **warning** icon alerts you of serious issues and potential risks that require your full attention.

3. New Features in MASCHINE 2.14

The following new features have been added to MASCHINE:

- **Poly Synth:** Based on the Native Instruments Pro-53 plug-in, Poly Synth delivers the colorful character of a classic dual-oscillator synth built for full hands-on control with MASCHINE. It provides warm vintage tones, organic bass, and shimmering pads with all of the 80s golden-era style. Assign modulation, switch routings, blend sounds, patch, and play for polysynth magic. For more information, see [Poly Synth](#).
- **Multi-selection for Clips:** Using the MASCHINE software, it is now possible to select multiple Clips on the Song timeline while maintaining focus on just one Clip. Multiple Clips can be selected using click-and-drag or by holding [cmd] (macOS) or [alt] (Windows) and then individually clicking on Clips to select them. This enables you to move or copy multiple Clips at once or apply context menu functions such as **Clear**, **Color**, **Duplicate**, and **Delete**. For information on Clips, see [Working with Patterns and Clips](#).
- **Extended Arpeggiator modes:** MASCHINE now includes the Advanced and Range Arpeggiator modes. The Advanced mode includes **Retrigger**, **Repeat**, **Offset**, and **Inversion**, allowing you to explore alternative versions of the same arpeggiator sequence. The Range mode enables you to set the minimum and maximum range of notes used for an arpeggiator sequence. For more information, see [Using the Arpeggiator](#).

3.1. Poly Synth

Based on the Native Instruments Pro-53 plug-in, Poly Synth delivers the colorful character of a classic dual-oscillator synth built for full hands-on control with MASCHINE. It provides warm vintage tones, organic bass, and shimmering pads with all of the 80s golden-era style. Assign modulation, switch routings, blend sounds, patch, and play for polysynth magic.

Poly Synth includes the following features:

- Up to 16 voices
- Two oscillators
- Multimode filter
- Two envelope generators
- One LFO
- Modulation and Poly Mod

You can load Poly Synth into the first Plug-in slot of a Sound to gain full control over its parameters in the Control area or direct from your hardware controller. Enhance the sound of the Poly Synth further by adding internal effects, tweaking parameters during a live performance, or automate them like any other plug-in in MASCHINE.



The parameters described are presented as they appear in the Control area. In addition, the same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view).

3.2. Using Poly Synth

Poly Synth is a MASCHINE Plug-in and, as such, supports all usual plug-in actions and procedures. Hence, to know how to load, remove, replace, insert, move, copy/paste a Poly Synth, as well as how to adjust the Poly Synth parameters, and load/save presets, please refer to section [Plug-in Overview](#), where these are described in detail.



Poly Synth presets can be loaded from the Browser by selecting: SOUNDS, MASCHINE, Poly Synth.

3.3. Poly Synth Parameters

The Poly Synth has the same parameters in both the Control area and in the Plug-in Strip of the Mix view.

Poly Synth Parameter Pages in the Control Area

In the Ideas and Song view, the parameters of the Poly Synth are grouped in the Control area:



Poly Synth parameters in the Control area

The Poly Synth parameters are presented in nine pages:

- Page 1: [Filter](#) adjusts the brightness of the sound and the filter mode.
- Page 2: [Envelopes](#) adjusts the filter and amplitude envelope generators.
- Page 3: [Mix / Voices](#) sets oscillator levels, voice mode, and the number of voices.
- Page 4: [Oscillator A](#) sets the basic tone and waveforms for Oscillator A.
- Page 5: [Oscillator B](#) sets the basic tone and waveforms for Oscillator B.
- Page 6: [LFO](#) sets the rate and modulation destinations for the low-frequency oscillator.
- Page 7: [Modulation](#) assigns the LFO or Noise signal (or a combination of both) to modify the frequency or pulse width of both oscillators as well as the filter cutoff.
- Page 8: [Poly Mod](#) sets Oscillator B or the Filter envelope to modulate Oscillator A frequency, Oscillator A pulse-width, and the Filter cutoff.
- Page 9: [Global](#) changes the overall sound and function of the Poly Synth.

Poly Synth in the Plug-in Strip


In Mix view, the panel of the Poly Synth provides easy access to parameters:



The Poly Synth parameters in the Plug-in Strip

In the Plug-in Strip the Poly Synth parameters are consolidated and grouped into two pages:

- Page 1: **MAIN** contains all main synth parameters, including the Oscillators, Mixer, Amp, and Filter sections.
- Page 2: **MODULATION** contains all global and modulation parameters, including Voicing, Global, LFO, Poly Mod, and Modulation sections.

 For more information on the Plug-in Strip, see [The Plug-in Strip](#).

3.3.1. Poly Synth Filter

The function of the filter is to subtract frequencies from the sound produced by the oscillators and noise generator, thereby changing the overall harmonic content of the sound. This change can be varied over time using the [Filter Envelope](#) to produce more dynamic timbres. Additionally, you can experiment with the [Invert](#) parameter to reverse the envelope's effect on the filter or the powerful [Poly Mod](#) feature to modulate the filter further.

The Filter page parameters are presented as follows:

Filter Parameters

Element	Description
Cutoff	Sets the frequency of the filter. A low-pass (LP), band-pass (BP), or hi-pass (HP) characteristic may be selected using the Mode parameter.
Resonance	Sets the amount of boost around the cutoff frequency for the filter. This emphasizes a narrow band of frequencies. High levels of resonance can cause the filter to self-oscillate.
Env Amount	Sets the amount of modulation from the filter envelope to the filter's cutoff frequency. Any setting above zero means that each time you strike a key, the filter envelope controls how the filter opens and closes. Higher amounts affect the cutoff frequency more dramatically.

Element	Description
Invert	Inverts the effect of the filter envelope on the filter. When the Invert switch is activated, the action of the filter envelope on the filter is inverted. Normally when the Invert switch is off, and the Env Amount is turned up, the filter's Cutoff rises in the Attack stage and drops back in the Decay and Release stages. However, with Invert on, the Cutoff drops during the Attack stage and comes back up in the Decay and Release stages. This can be useful for creating sound effects.
KBD	Sets the amount of modulation from the keyboard to the filter's cutoff frequency. Increasing the amount means that higher notes open the filter more. This is useful for adding brightness to a sound as higher notes are played, which is typically how acoustic instruments behave. The keyboard filter tracking is off at zero, meaning the filter frequency is unaffected by playing higher or lower notes.
Mode	Selects the low-pass (LP), band-pass (BP), or hi-pass (HP) mode for the filter.

3.3.2. Poly Synth Envelopes

The Poly Synth contains two 4-stage envelopes; one controls the filter and the other the amplitude.

The Filter envelope provides control over harmonics and brightness over time by modifying the cutoff frequency over four stages, including attack, decay, sustain, and release. Using these controls to filter sound over time can provide a lot of variation and expression.

The Filter Envelope is applied using the **Env Amount** parameter on the Filter page. Additionally, experiment with the **Invert** parameter to reverse the effect of the envelope on the filter, and the powerful **Poly Mod** to modulate the filter further.

The Amp Envelope shapes the volume of a sound over time. Using this envelope, it is possible to mimic the dynamic properties of instruments such as for example, a string with a slow attack and a long release or a drum with a sharp attack and quick release. Of course, there is lots of room for experimentation, especially when combined with the effect of the Filter Envelope.

The Filter and Amp Envelope parameters are presented as follows:

Filter Envelope

Element	Description
Attack	Sets the attack time of the envelope. Turned fully left, the envelope will start immediately. As the level is increased, the attack becomes longer, allowing the filter to open smoothly.
Decay	Sets the decay time of the envelope. After a sound reaches the filter frequency set at its attack stage, decay controls how quickly the filter then transitions to the cutoff frequency set with the sustain knob. The higher the setting, the longer the decay.
Sustain	Determines the control level for the duration of time that the note is being held. Unlike the other settings, Sustain is not time-based.
Release	Sets the release time of the envelope. This controls how quickly the filter closes after a note is released. If the Release switch on the Global page is set to off, then the Release control here will have no effect.

Amp Envelope

Element	Description
Attack	Adjusts the time it takes once a key is pressed for the volume to climb from zero to full volume. It can be used to create a sound with a fast attack or a slow fade-in.

Element	Description
Decay	Adjusts the time it takes for the volume to fall from its initial full volume to the level set by the Sustain control while a key is held down.
Sustain	Sets the volume level that the envelope remains at while the key is held down after the decay has expired.
Release	Adjusts the time it takes for the volume to fall from the sustain level to zero once the key is released. It can be used to create sounds that have a short or long fadeout.

3.3.3. Poly Synth Mix and Voices

The Mix / Voice page contains two sections that both affect the overall characteristics of the sound.

The Mix section enables you to adjust the levels of the various sound generators on the Poly Synth. These include Oscillator A, Oscillator B, and the noise generator. The level of at least one of these must be increased to make sound with the Poly Synth.

The Voice section contains parameters that can be used to set the polyphony (the number of voices used) and mode of the sound.

The Mix and Voice parameters are presented as follows:

Mix Parameters

Element	Description
Level A	Adjusts the level of Oscillator A. At the far left position the oscillator is not heard. To the far right, the oscillator is at full volume.
Level B	Sets the level of Oscillator B. At the far left position the oscillator is not heard. To the far right, the oscillator is at full volume.
Noise	Sets the level of the noise generator. At the far left position the noise generator is not heard. To the far right, the oscillator is at full volume.

Voice Parameters

Element	Description
Glide	Sets the level of glide. When Unison mode is engaged, the Glide parameter determines the amount of time it takes the Poly Synth to slide from the previous note's pitch to a new pitch. This is the portamento effect that is common among monophonic synthesizers. The range of this function is from 0 seconds (when turned fully to the left) to 5 seconds (when turned fully to the right).
Mode	Sets the voice mode. In Poly mode, the Voices setting determines the number of voices that can play simultaneously. In Unison mode, all voices sound on one note. For example, if you use 16 voices of polyphony and are in Unison mode, playing a note will force 16 voices to play the same tone. That's 32 oscillators! This yields a very full lead or bass sound and allows the Glide function for portamento (gliding) effects. To create a "fatter" Unison Mode sound, the Poly Synth subtly detunes each voice. The detuning gives a doubling effect that can be used to create a mighty sound. If Unison with Legato is enabled, when detached notes are played, each Attack will still be re-triggered, but when overlapping notes are played, the pitches will change without new Attacks, for Legato response.
Voices	Sets the number of voices of polyphony available to the Poly Synth synthesis engine. It also functions as the control for changing the amount of polyphony. The range is from 1 to 16 voices.

Element	Description
Detune	Adds an amount of random deviation throughout the synth engine. This random detuning is particularly noticeable in Unison mode, where the tuning variances will cause a monophonic patch to thicken. When Detune is set at the minimum amount, the Poly Synth is in "digital" mode, where all signals in the synthesis engine are precisely calibrated.

3.3.4. Poly Synth Oscillator A

The Poly Synth has two oscillators that are split across two pages named Oscillator A and **Oscillator B**. These oscillators produce waveforms that each have their own inherent sound character based on their harmonic content. The Poly Synth has two oscillators for each voice. If 16 voices are being used that's 32 oscillators! Level controls for each oscillator are located in the **Mix / Voice** section.

Oscillator A is capable of simultaneously generating sawtooth (ramp-like) and pulse (square-like) waveforms. You can select either waveform, both waveforms, or no waveform. If both waveforms are chosen, the output of this module will be an even mix of sawtooth and pulse waveforms. If neither waveform is selected, there will be no output from Oscillator A. Oscillator B can be hard-synced to Oscillator A to create more complex sounds.

Oscillator A parameters are presented as follows:

Oscillator A Parameters

Element	Description
Tune	Sets the base pitch of Oscillator A. It can be adjusted in semitone increments over a 4-octave range.
Sync	<p>Activates Oscillator A hard sync. Synchronization forces this oscillator's waveform to restart each time Oscillator B's waveform begins. The result of synchronization is the creation of interesting waveforms by either reinforcing harmonics of the controlling oscillator or adding new, unusual harmonics to the output signal.</p> <p>It is important to note that when Sync is activated, the tune settings of Oscillator A only adjust the timbre of the oscillator. Oscillator B alone determines the pitch of the sound. Oscillator A will follow the pitch of incoming MIDI notes. Settings of Oscillator B are simply used to change the harmonic content of this oscillator.</p>

Shapes Parameters

Element	Description
Saw	Activates the Sawtooth waveform. This is the richest audio signal of the waveforms (it contains all of the harmonics at decreasing volume levels in high frequencies). Its sound is ideal for brass sounds, percussive bass sounds, or rich accompaniments.
Pulse	Activates the Pulse waveform. The harmonic spectrum of a pulse wave is determined by the duty cycle, which can be changed using the Pulse Width . Acoustically, the wave could be described as changing during the duty cycle from buzzy, nasal and biting for thin pulses to warm, round, and hollow for more evenly spread, squarish waveforms.
Pulse Width	Changes the width of the pulse wave. It changes from a square wave when the pulse width knob is at its center position to a very narrow pulse wave when the pulse width knob is fully left or right.

i The parameters described are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See [The Plug-in Strip](#) for more information on this.

3.3.5. Poly Synth Oscillator B

The Poly Synth has two oscillators split across two pages named **Oscillator A** and Oscillator B. These oscillators produce waveforms with their own inherent sound character based on their harmonic content. The Poly Synth has two oscillators per voice. Level controls for each of these are located in the Mix / Voice section.

Oscillator A is capable of simultaneously generating sawtooth (ramp-like) and pulse (square-like) waveforms. Oscillator B can simultaneously generate sawtooth, triangle, and variable-width pulse waves and can be hard-synced to Oscillator A to create more complex sounds.

Oscillator B is also used as both a sound and modulation source. In addition to having more waveforms and finer frequency control, Oscillator B can be used as an LFO (Low Frequency Oscillator). This can also be disconnected from the incoming MIDI notes, allowing it to operate independently of the pitch being played.

Oscillator B parameters are presented as follows:

Oscillator B Parameters

Element	Description
Tune	Sets the tuning of Oscillator B. The Tune control on Oscillator B works identically to that found on Oscillator A. It increments the frequency by semitones and provides a range of +/- 2-octaves. When the Low Mode is on, this control allows the frequency to be varied from roughly 0.3 Hz (one cycle every three seconds) to 30 Hz.
Fine	Sets the fine-tuning of Oscillator B. The fine control knob allows the tuning of Oscillator B to be adjusted continuously over a range of one semitone. When this control is turned fully counter-clockwise, there is no effect on the oscillator frequency.
Low	Turns Oscillator B into a low-frequency oscillator. The frequency range varies from 0.3 Hz to 30 Hz, with the rate selected using the Tune and Fine parameters.
KBD	Activates MIDI note control of Oscillator B. When turned off, its tuning can only be controlled by the Tune and Fine knobs, MIDI continuous controllers, and modulation functions.

Shapes Parameters

Element	Description
Saw	Activates the Sawtooth waveform. This is the richest audio signal of the waveforms (it contains all of the harmonics at decreasing volume levels in high frequencies). Its sound is ideal for brass sounds, percussive bass sounds, or rich accompaniments.
Triangle	Activates the Triangle waveform. It sounds somewhere in between a square wave and a sine wave. It's not as buzzy as a square but not as smooth as a sine wave. It sounds clearer, maybe even brighter than a sine wave.
Pulse	Activates the Pulse waveform. The harmonic spectrum of a pulse wave is determined by the duty cycle, which can be changed using the Pulse Width . Acoustically, the wave could be described as changing during the duty cycle from buzzy, nasal and biting for thin pulses to warm, round, and hollow for more evenly spread, squarish waveforms.

Element	Description
Pulse Width	Changes the width of the pulse wave. It changes from a square wave when the pulse width knob is at its center position to a very narrow pulse wave when the pulse width knob is fully left or right.

3.3.6. Poly Synth LFO

The LFO provides a modulation signal with Modwheel control. The LFO is a special-purpose oscillator that produces a frequency typically below the range of human hearing. In addition to standard LFO functionality, the Poly Synth's LFO can also sync to the MASCHINE tempo.

An LFO, short for low-frequency oscillator, is an oscillator that runs below audio rate (below 20 cycles per second). The LFO is used for periodic modulation such as vibrato (periodic pitch modulation), filter modulation, and pulse-width modulation. The LFO can be routed to any or all of these destinations using the controls in the Modulation section.

The LFO produces three waveshapes: sawtooth, triangle, and square. Any of these waveshapes can be enabled simultaneously. Noise is also available as a modulation source on the Modulation page. When all wave three shapes are switched off, the output of the LFO is a constant. With this, the Mod-Wheel can, for example, be used to directly make a filter sweep. Additionally, when all three waveform selector switches are turned on, the LFO enters the Sample and Hold mode. This is especially effective when combined with the **Voice Trig** mode, to produce a different Filter Cutoff every time the notes retrigger.

The LFO parameters are presented as follows:

LFO Parameters

Element	Description
Rate	Determines the rate of the low-frequency oscillator.
Mode	Determines the mode of the LFO. The LFO can be set to run free or synchronized to the tempo of your host sequencer. In Free mode at the minimum Rate setting, the LFO cycles at about 0.04 Hz (1 cycle every 25 seconds). At its maximum Rate setting, the LFO will achieve a 20 Hz (20 cycles per second) rate. When set to Synced , the Frequency control will lock the LFO to the nearest appropriate tempo. As the Rate parameter is increased, the locking function will select a larger quantization value. It is sensitive to 1/16 and 1/8 note values, as well as triplet figures.
Voice Trig	Resets the Envelope when a MIDI note is received. This will automatically retrigger any held notes.

Shapes Parameters

Element	Description
Saw	Activates the sawtooth wave of the LFO. Activating/deactivating all of the shapes together will unlock other LFO behaviors. For more information, see above.
Triangle	Activates the triangle wave of the LFO.
Pulse	Activates the pulse wave of the LFO.

3.3.7. Poly Synth Modulation

The Modulation page is used to assign the LFO or Noise signal (or a combination of both) to modify the frequency or pulse-width of both oscillators as well as the filter cutoff. The **Amount** parameter sets the initial modulation level, and the modulation wheel on your MIDI controller can be used to apply the modulation effect further.

The Oscillator A Oscillator B destination switches determine the signals that will be affected by the modulation. Selecting the **Freq A** or **Freq B** destinations will allow you to apply LFO or noise modulation to Oscillator A and Oscillator B frequencies, respectively. This can provide interesting pitch and timbre alterations.

The **PW A** and **PW B** switches provide modulation of the pulse with the two oscillators. This can add great depth to your patch when using the pulse waveshapes on the oscillators. Finally, the **Filter** switch will allow you to add LFO and noise modulation of the cutoff frequency. This can create long sweeping or warbling filter effects that can also be controlled by simply moving the modulation wheel.

The Modulation parameters are presented as follows:

Modulation Parameters

Element	Description
Amount	Sets the amount of LFO modulation routed to a destination set in the Destination section. Modulation can also be applied using the modulation wheel.
LFO<>Noise	Determines the mix of the modulation sources to be applied. When turned to the left, the modulation source is the output of the LFO section. When completely turned to the right, the source is the output of the Noise generator. When placed between these extremes, the source is a mixture of the two signals.

Destination Parameters

Element	Description
Freq A	Adds LFO or Noise modulation to the frequencies of Oscillator A. This can provide interesting pitch and timbre alterations to Oscillator A.
Freq B	Adds LFO or Noise modulation to the frequencies of Oscillator B. This can provide interesting pitch and timbre alterations to Oscillator B.
PW A	Adds LFO or Noise modulation of the pulse on Oscillators A. This can add great depth to your patch when using the pulse waveshapes on Oscillator A.
PW B	Adds LFO or Noise modulation of the pulse on Oscillators B. This can add great depth to your patch when using the pulse waveshapes on Oscillator B.
Filter	Adds LFO and Noise modulation of the filter cutoff. This can create long sweeping or warbling filter effects by simply moving the modulation wheel.

3.3.8. Poly Synth Poly Mod

The Poly Mod (polyphonic modulation) page provides a modulation system unique among polysynths. The Poly Mod system can be set to use Oscillator B or the Filter envelope to modulate Oscillator A frequency, Oscillator A pulse width, or the Filter cutoff frequency. with up to 16 voices this means that voice apply individual modulation to any of these selected destinations, creating interesting and varied results especially if the LFO is not set to retrigger for each new note played.

The Poly Mod parameters are presented as follows:

Poly Mod Parameters

Element	Description
Filter Env	Selects the amount of modulation from the Filter envelope that is applied to a selected destination. For more information on the Filter envelope, see Poly Synth Envelopes .
Oscillator B	Creates FM and vibrato effects using an oscillator as a modulation source. The setting of Oscillator B will determine how much effect the output of Oscillator B will have on the selected modulation destinations.

Destination Parameters

Element	Description
Freq A	Activates frequency (tuning) of Oscillator A as a modulation destination. When activated, the tuning of Oscillator A will be affected. Depending on the Filter Env and Oscillator B controls settings, you will be able to create pitch slides, FM clanging, or wild pitch LFO effects.
PW A	Activates pulse width of Oscillator A as a modulation destination. Selecting the PW A switch will cause the Poly Mod system to affect the pulse width of Oscillator A. This is most often used to add thickness to a sound.
Filter	Activates the cutoff frequency of the filter as a modulation destination. The Filter destination switch will allow the Poly Mod section to modulate the Filter Cutoff setting. Modulating the Filter Cutoff will allow you to create LFO or FM-based filter effects.

3.3.9. Poly Synth Global

The Global page contains a number of parameters that enable you to change the overall sound and function of the Poly Synth.

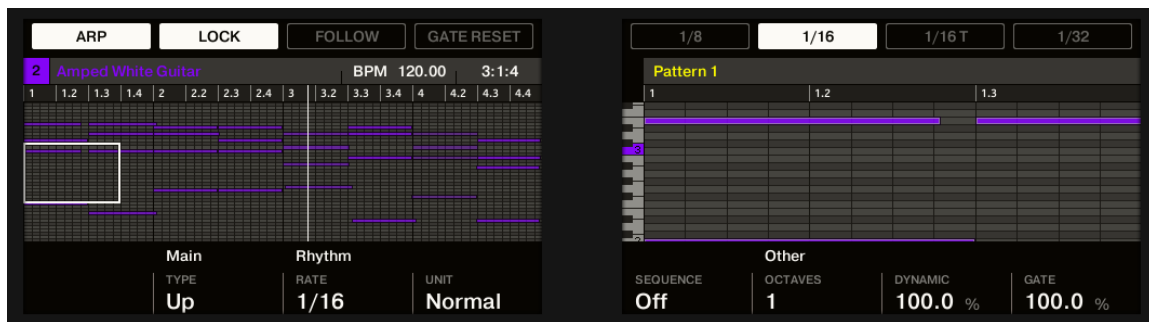
The Global parameters are presented as follows:

Global Parameters

Element	Description
Tune	Sets the basic tuning of the entire Poly Synth. The range of this control is +/-1 semitone.
Pitchbend	Sets the pitchbend range of the Poly Synth. The range of this control is 1 to 24 semitones.
Velocity	Determines if the incoming MIDI note velocities will control the envelope functions. When engaged, velocity will vary the amplifier envelope by 90%, and the filter envelope by 70%. The use of velocity control can help add dynamics to a sound.
Release	Determines if the Release settings of the filter and amplifier envelopes are used. When this button is activated, the envelope release times work as expected. When the button is deactivated, release times are set to their minimal positions.
Hold	Continues to hold played notes until it is deactivated.

3.4. Using the Arpeggiator

If your pads are in Keyboard mode, pressing **NOTE REPEAT** switches your controller to Arp mode:



The Arp mode on your controller.

In Arp mode, you can customize the way the notes of the played chord will be arpeggiated by adjusting the following settings:

Arp Settings - Page 1

Element	Description
LOCK (Button 2)	Keeps the Arp feature enabled even when you leave Arp mode. For example, this can be useful to adjust the chord settings, switch to another Pattern, adjust Plug-in parameters, etc., while keeping arpeggios running. If Arp is locked, when you switch to another controller mode, the NOTE REPEAT button stays dimly lit to remind you that Arp is on. You can also use the shortcut SHIFT + NOTE REPEAT at any time to enable/disable LOCK .
HOLD (Button 3)	Allows the notes played by the arpeggiator to be latched. This means the pads can be released, and the arpeggiated notes will continue to play. Press HOLD (Button 3) again to stop the arpeggiator.
GATE RESET (Button 4)	Press this button at any time to reset the GATE parameter to its default value of 100% .
Button 5–8	Selects between four different presets, even during playing. Each preset can store particular values for the TYPE , RATE , UNIT , SEQUENCE , and OCTAVES parameters at the bottom of the displays (see below). The rate currently assigned to each button is indicated below on the display, along with the UNIT value (T for triplet values or D for dotted values). The selected preset is highlighted.
TYPE (Knob 2)	Sets the sequential order of the arpeggiated notes. You can choose from the following settings: Up : Starts from the root note and plays the notes up through the chord. Down : Plays the notes the other way around. Up & Down : Plays the notes in both directions alternatively. Order Played : Plays the notes in the order you pressed down the corresponding pads on your controller. If you have configured chords, the arpeggio will first play all notes of the chord triggered by the first pad you pressed, then all notes of the chord triggered by the second pad you pressed, etc. Chord : Plays all notes of the chord together repeatedly.
RATE (Knob 3)	Adjusts the note length, hence the rate of the arpeggio. Available values are 1 BAR and a series of note values going from 1/2 (half note) until 1/128 (a hundred twenty-eighth note).

Element	Description
UNIT (Knob 4)	Selects from three variations of the original note length defined by the RATE parameter: NORMAL plays the original note length (default setting), TRIPLET plays triplets of the original note length (faster, three notes in the duration of two original notes), and DOTTED plays dotted versions of the original note length (slower, two notes in the duration of three original notes). Under Button 5–8, triplet values are indicated by a T and dotted values by a D next to the note value.
SEQUENCE (Knob 5)	Allows you to add interesting rhythms to your arpeggiated notes. Select one of eight different sequences and apply it to the arpeggio you are playing. Select Off to use the default regular sequence.
OCTAVES (Knob 6)	Adjusts the spread of the arpeggiated sequence. You can choose to playback your sequence within the octave of the pads you pressed on your controller only, or you can select up to eight octaves and let the notes of your chord (or the single note of your pad) be played back in as many octaves.
DYNAMIC (Knob 7)	Amplifies or reduces the velocity derived from the pressure you apply on every single pad you hold (Polyphonic Aftertouch). Available values range from 1% to 200% . This setting applies globally to all rate presets.
GATE (Knob 8)	Adjusts the ratio between the duration of the notes and the duration of the silences between them, measured as a percentage of the note value set by RATE (see above). Available values range from 0% to 200% . At low values, the notes are very short. At 50% , notes and silences are equal. At 100% (midcourse), each note last exactly until the next note is triggered. At higher values notes overlap (provided that the selected Sound is polyphonic). This setting applies globally to all rate presets.

Page 2 of the Arpeggiator contains the Advanced and Range settings. The Advanced parameters Retrigger, Repeat, Offset, and Inversion allow you to explore alternative versions of the same arpeggiator sequence. The Range parameters set the minimum and maximum note range of the arpeggiator sequence.

Arp Settings - Page 2

Element	Description
RETRIGGER (Knob 1)	<p>Sets a number of steps in the arpeggiator sequence, after which the sequence restarts its cycle, regardless of the number of pitches in the sequence. For example:</p> <ul style="list-style-type: none"> If the arpeggiator sequence consists of a 5 note cycle (1 - 2 - 3 - 4 - 5) and RETRIGGER is set to 3, the Arpeggiator output is 1 - 2 - 3 - repeat. If the arpeggiator sequence consists of a 5 note cycle (1 - 2 - 3 - 4 - 5) and RETRIGGER is set to 8, the Arpeggiator output is 1 - 2 - 3 - 4 - 5 - 1 - 2 - 3 - repeat. <p>Rests in a Sequence are treated as steps:</p> <ul style="list-style-type: none"> If the arpeggiator sequence consists of 6 pitches, the Sequence is 1 - 2 - 3 - rest - 4 - 5 - 6 – rest, and RETRIGGER is set to 5, the Arpeggiator output is 1 - 2 - 3 - rest - 4 - repeat.
REPEAT (Knob 2)	<p>Sets a number by which each step in the arpeggiator sequence is repeated. For example:</p> <ul style="list-style-type: none"> If the arpeggiator sequence consists of a 3 note cycle (1 - 2 - 3) and REPEAT is set to 3, the Arpeggiator output is 1 - 1 - 1 - 2 - 2 - 2 - 3 - 3 - 3 - repeat.

Element	Description
OFFSET (Knob 3)	<p>Sets a number by which the steps in the arpeggiator sequence are shifted in the cycle. For example:</p> <ul style="list-style-type: none"> • If the arpeggiator sequence consists of a 5 note cycle (1 - 2 - 3 - 4 - 5) and OFFSET is set to 0, the Arpeggiator output is 1 - 2 - 3 - 4 - 5 - repeat. • If the arpeggiator sequence consists of a 5 note cycle (1 - 2 - 3 - 4 - 5) and OFFSET is set to +1, the Arpeggiator output is 2 - 3 - 4 - 5 - 1 - repeat. • If the arpeggiator sequence consists of a 5 note cycle (1 - 2 - 3 - 4 - 5) and OFFSET is set to -1, the Arpeggiator output is 5 - 1 - 2 - 3 - 4 - repeat.
INVERSION (Knob 4)	<p>Adds inverted alternations of the arpeggiator sequence to the cycle. For example:</p> <ul style="list-style-type: none"> • If the arpeggiator sequence consists of a 3 note cycle (1 - 2 - 3), TYPE is set to UP, and INVERSION is set to 0, the Arpeggiator output is 1 - 2 - 3 - repeat. • If the arpeggiator sequence consists of a 3 note cycle (1 - 2 - 3), TYPE is set to UP, and INVERSION is set to 1, the Arpeggiator output is 1 - 2 - 3 - 2 - 3 - repeat. • If the arpeggiator sequence consists of a 3 note cycle (1 - 2 - 3), TYPE is set to UP, and INVERSION is set to 2, the Arpeggiator output is 1 - 2 - 3 - (2 - 3 - 1 octave up) - (3 - 1 - 2 octave up) - repeat.
MIN. KEY (Knob 5)	<p>Sets the lowest key that can be used as an input for the arpeggiator sequence. Note, that the arpeggiator can still generate pitches below the Min. Key setting.</p>
MAX. KEY (Knob 6)	<p>Sets the highest key that can be used as an input for the arpeggiator sequence. Note, that the arpeggiator can still generate pitches above the Max. Key setting.</p>



Arp mode seamlessly switches to Note Repeat mode as soon as you switch your pads from Keyboard mode to Pad Mode (see above): All current values (including the **LOCK** state) are retained.

4. New Features in MASCHINE 2.13

This Addendum describes the new features that have been added to the following products:

- **MASCHINE Software**
- **MASCHINE+**
- **MASCHINE MK3**
- **MASCHINE STUDIO**
- **KOMPLETE KONTROL S-Series MK2**

These new features include:

- **Accessibility from KKS MK2:** This enables visually-impaired to use KOMPLETE KONTROL S-Series MK2 keyboards to control MASCHINE software. This feature is enabled by holding the top left button (**SHIFT**) and pressing the top right button (**MIXER**). For more information, refer to the KOMPLETE KONTROL S-Series MK2 MASCHINE Accessibility Manual, available here: [Download manual](#).
- **Navigating Clips via 4-D encoder on MASCHINE MK3 and MASCHINE+:** You can now navigate Clips using the 4-D encoder. For more information, see [Navigating Clips using the 4-D Encoder](#).
- **Improved navigation between Pattern view and Clip view:** It is now possible to easily switch between Pattern view and Clip view. For more information see [Navigating between Patterns and Clips](#).
- **Improved naming for Clip and Pattern duplication:** To aid ease of use and speed up workflow, the names of Clips and Patterns are now automatically appended with a number when duplicated. This helps distinguish between different Patterns and Clips while in the creative flow. You can still use custom names for your Pattern and Clips, which will also be numerically appended when duplicated.

4.1. Navigating Clips using the 4-D Encoder

The 4D-encoder can be used to interact and arrange Clips in Song mode. It is possible to navigate between Groups, select, move, and resize Clips using the 4D-encoder.

- ▶ To navigate between Groups, nudge the encoder up and down.
 - The previous or next Group is selected.
- ▶ To select Clips in the selected Group, turn the encoder left or right.
 - The Clip to the left or right is selected.
- ▶ To move the selected Clip, nudge the encoder left or right.
 - Nudging the 4-D encoder left or right moves the selected Clip relative to the current Arrange Grid value. Pressing **SHIFT** while nudging moves the selected Clip relative to the current Step Grid value.
- ▶ To resize the selected Clip, press and turn the 4-D encoder.
 - Pressing and turning the 4-D encoder left shortens the selected Clip. Pressing and turning the 4D-encoder right elongates the selected Clip. The resizing amount is relative to the current Arrange Grid value.



To select a new Grid value, press **SHIFT + FOLLOW (Grid)**, and then press Button 3 (**ARRANGE**) or Button 4 (**STEP**). To change the value of the selected Grid, press the pad relative to the value you want to use.

4.2. Navigating between Patterns and Clips

MASCHINE provides a simple way to switch between Pattern view and Clip view for ease of use and to speed up your workflow.

To navigate to Pattern view:

1. Press **PATTERN**.
2. Press Button 1 (**PATTERN**).

→ Pattern view is displayed. Press Button 1 again to pin or unpin Pattern view.

To navigate to Clip view:

1. Press **PATTERN**.
2. Press Button 2 (**CLIP**).

→ Clip view is displayed, and MASCHINE switches to Song mode. Press Button 2 again to pin or unpin Clip view.



You can also quickly enter Clip view by pressing **SHIFT + PATTERN**.

5. New Features in MASCHINE 2.12.1

This Addendum describes the fixes and changes that have been made for the MASCHINE 2.12.1 hotfix. These include:

- Variation page on **MASCHINE STUDIO**. The Variation page is now accessible using **SHIFT + NOTE**.
- Computer keyboard shortcuts for Clip modulation events:
 - To select all Clip modulation events, press [CMD + A] (macOS) / [CTRL + A] (Windows).
 - To delete selected Clip modulation events, press [Backspace] (macOS) / [Delete] (Windows).

Availability

MASCHINE 2.12.1 is available for download from Native Access. If you own MASCHINE+ be sure to perform a system update via the Settings page.

6. New Features in MASCHINE 2.12

This Addendum describes the new features that have been added to the following products:

- **MASCHINE Software**
- **MASCHINE+**
- **MASCHINE MK3**
- **MASCHINE STUDIO**

These new features include:

- **Clips:** You can now start working on a song directly on the timeline without having to create Scenes and Patterns. This is done in the same way as timeline-based DAWs, so you can record or add MIDI notes directly on the timeline and freely reposition your content. Create transitions across scenes, bring unique variation to patterns, record MIDI directly into the full arrangement, and freely add audio wherever you need it. No need to worry, the existing pattern-based MASCHINE workflow you are familiar with has also been preserved to allow you to work whichever way you prefer.

Document Conventions

Please note, this document refers to the **IDEAS (Song)** button as found on MASCHINE+, however, if you own MASCHINE MK3 this button is labeled **ARRANGER**, and on MASCHINE STUDIO **ARRANGE**. The names of these buttons are all referring to the same functionality.

6.1. Working with Patterns and Clips

MASCHINE is great for experimenting with ideas. You can start off with the simplest of beats and build-up from there. Adding new Patterns and creating variations is the first step to developing your track. Whether you want to use the traditional Pattern-based workflow as your building blocks or directly make use of Clips in the Song view, MASCHINE provides the ultimate flexibility.

6.1.1. Overview of Patterns and Clips

You can build your Song in MASCHINE using either Patterns or Clips, or a combination of both. Patterns and Clips each have their advantages depending on your preferred workflow and goals.

Clips only exist in the Song view (timeline) and are unique, while Patterns are referenced objects that exist in both the Ideas view and Song view. This means Patterns are great when you want to create single-sourced sequences, and Clips provide flexibility when you need one-off unique sound bites that can be freely positioned on the timeline. Therefore, if you copy a Clip to multiple places and change one of the Clips, only the one you edited is changed. However, if you use a Pattern in multiple places, and change one Pattern, all occurrences of this Pattern are changed (unless you use the “make unique” feature or convert into a Clip beforehand). For added flexibility, Clips can be freely positioned and moved across the timeline. They can be part of a section, but can also exist outside a section or span across multiple sections.

To summarize, here's an overview of Patterns and Clips basics:

- They both contain events (also called “notes”) that make up a groove or a musical phrase using the Sounds of the selected Group.

- They both also contain modulation data (if any) modifying the value of parameters in that Group or any of its Sounds.
- They can both be edited in the Editor, however, only the selected Pattern or Clip will appear in the Editor.

Patterns versus Clips

This section provides an overview of the differences between Patterns and Clips.

Patterns

Here are the features of Patterns:

- Patterns exist in the Ideas view and Song view. They act as the building blocks for developing ideas in Ideas view and can be added to Scenes in Song view to create an arrangement.
- You can reference the same Pattern in different Scenes. When you modify a Pattern in the Pattern Editor, all references to this Pattern are updated in the Song view (unless you use the “make unique” feature or convert into a Clip beforehand).
- When added to the Song view Patterns maintain a fixed position on the timeline of the arrangement relative to the Scene.
- A Pattern can be converted into a Clip. This creates a unique version of the Pattern that can be freely placed on the timeline of the arranger.
- Only one Pattern from each Group can be added to a Scene.
- A Pattern belongs to a Group and is saved together with the Group. Each Group can have an unlimited number of Patterns.

Clips

Here are the features of Clips:

- Clips exist only in Song view. Clips can be used in addition to Patterns. They are great for adding, for example, one-shot sounds, transitions, and vocal, etc.
- Unlike Patterns, they are unique entities that can be freely positioned and moved across the timeline of the arranger in the Song view.
- If you copy a Clip to multiple places and change one Clip, only the one you edited will be changed.
- They can be part of a section, but can also exist outside a section or span across multiple Sections.
- Whenever a Clip is placed on top of a Pattern, you will only hear the Clip.
- In Song view, Clips appear in a fully saturated color, while Patterns will have a slightly dimmed color state.

Creating a Clip

A new Clip can be created anywhere on the arranger in the Song view.

To create a new Clip in the Song view:

1. Double-click anywhere on the arranger to create a new Clip.

→ A new Clip is created and Events can be added in the Editor.

- Alternatively, you can also right-click on the arranger and select **Create** in the Context menu.



Clips can also be created directly on top of Patterns. In this instance, you will only hear the Clip during playback.

To create a Clip in the Arranger:

1. Hold **SHIFT + IDEAS (Song)**.
2. Then press Button 2 (**SONG**) to select the Song view.
3. Press Button 2 (**CLIP**) to select Clips.
4. Press Button 5 (**CREATE**) to create a new Clip.

→ A new Clip is created in the Arranger.

Alternatively, you can access the Clip view as follows:

1. Press **SHIFT + PATTERN**.
2. Release **SHIFT**.
3. Press Button 5 (**CREATE**).



You can pin the Clip page by pressing Button 1.

Deleting a Clip

Clips can be deleted from the Arranger and Editor in Song view.

To delete a Clip in the software:

1. Right-click the Clip you want to delete.
2. In the context menu, select **Delete**, or press [**Backspace**] on your computer keyboard.

To delete a Clip:

1. Press **SHIFT + PATTERN**.
2. Release **SHIFT**.
3. Press Button 6 (**DELETE**).

Doubling a Clip

The size of a Clip can be doubled in the Song view.

To double the length of a Clip in the software:

1. Right-click in the Clip you want to double.
2. In the context menu, select **Double**.

To double the length of a Clip:

1. Press **SHIFT + PATTERN**.
2. Release **SHIFT**.
3. Press Button 3 (**DOUBLE**).

Duplicating a Clip

Using the duplicate function enables you to make a copy of a Clip.

To duplicate a Clip in the software:

1. Right-click in the Clip you want to duplicate.
2. In the context menu, select **Duplicate**.



You can also duplicate a Clip by holding [Alt] on your computer keyboard while clicking and dragging the Clip you want to copy.

To duplicate a Clip:

1. Press **SHIFT + PATTERN**.
2. Release **SHIFT**.
3. Press Button 4 (**DUPLICATE**).

Clearing a Clip

Clearing a Clip allows you to remove all of its Events, leaving the Clip empty.

To clear a Clip:

1. Click on the Clip you want to clear.
2. Right-click and select **Clear** from the context menu.

To clear a Clip in Song view:

1. Select the Clip you want to clear using the left and right Page buttons (arrow buttons).
2. Press **SHIFT + Pad 9**.

Adjusting the Length of a Clip

In the Song view, you can adjust the length of a Clip. When you adjust the length, it snaps to the nearest position on the grid, using the current Arrange Grid value. You can override the grid by holding down Shift while dragging the Clip.

To adjust the length of a Clip in the software:

1. Click and drag the end portion of the Clip left or right.
2. Press Shift to override the grid and adjust it in smaller intervals.

To adjust the length of a Clip:

1. Hold **SHIFT + IDEAS (Song)**.
2. Then press Button 2 (**SONG**) to select the Song view.
3. Press Button 2 (**CLIP**) to select Clips.
4. Press and turn the 4-D encoder to adjust the length of the selected Clip. Alternatively, you can also turn Knob 4.

→ The length of the Clip is adjusted.

Adjusting the Start of a Clip

In the Song view, you can adjust the start of a Clip. When you adjust the start point, it snaps to the nearest position on the grid, using the current Arrange Grid value.

To adjust the start of a Clip in the software:

- Click and drag the start portion of the Clip and drag it to the left or right.



Press **[Shift]** on your computer keyboard to override the Arranger Grid and adjust the Clip in smaller intervals.

To adjust the start of a Clip on the Arranger:

1. Hold **SHIFT + IDEAS (Song)**.
2. Then press Button 2 (**SONG**) to select the Song view.
3. Press Button 2 (**CLIPS**) to select Clips.
4. Turn the 4-D encoder to select the Clip you want to adjust.
5. Turn Knob 3 to adjust the start of the selected Clip.

→ The start of the Clip is adjusted.



Press **SHIFT** to override the Arranger Grid and adjust the Clip in smaller intervals.

Repositioning a Clip

In the Song view, a Clip can be moved to a different position within the same Group. This allows you to place a Clip exactly where you like on the timeline of your song. When you move a Clip, it snaps to the nearest position using the current Arrange Grid value. You can override the Arrange Grid and adjust the Clip in smaller intervals by holding down **[Shift]** on your computer keyboard while dragging.

To reposition a Clip in the software:

- Click and drag the Clip to the left or right in the Arranger to reposition it within the Group lane.

To reposition a Clip on the Arranger:

1. Hold **SHIFT + IDEAS (Song)**.
2. Then press Button 2 (**SONG**) to select the Song view.
3. Press Button 2 (**CLIPS**) to select Clips.
4. Use the 4-D encoder to select the clip you want to adjust.
5. Nudge the 4-D encoder left or right to reposition the selected Clip.

→ Nudging the 4-D encoder left or right moves the selected Clip relative to the current Arrange Grid value. Pressing **SHIFT** while nudging moves the selected Clip relative to the current Step Grid value.



To select a new Grid value, press **SHIFT + FOLLOW (Grid)**, and then press Button 3 (**ARRANGE**) or Button 4 (**STEP**). To change the value of the selected Grid, press the pad relative to the value you want to use.

Renaming a Clip

Clips can be renamed in Song view to replace the default name with a custom name of your own choice.

To rename a Clip in the software:

1. Double-click the Clip, or right-click and select **Rename** from the context menu.
2. Type a name and press **[Enter]** on your computer keyboard to confirm (or press **[Esc]** to cancel your changes).



You can also use **[cmd + R]** on macOS or **[Ctrl + R]** on Windows to rename a selected Clip.

To rename a Clip:

1. Hold **SHIFT + PATTERN**.
2. Press the Pad of the Clip you want to name.
3. Then press Button 5 (**RENAME**).
4. Enter a new name for the Clip by nudging and turning the 4-D encoder.
5. Press Button 8 to rename the Clip.

Coloring a Clip

By default, Clips take the color of the Group they belong to, but you can adapt the color of each individual Clip to your needs.

To color Clips in the software:

1. Click on the Clip you want to color.
2. Right-click and select **Color** from the context menu.
3. Select a new color.

To change the color of a Clip using your hardware:

1. Press **SHIFT + PATTERN**.
2. Release **SHIFT**.
3. Press the right page button to access page 2.
4. Turn Knob 1 (**Color**).



You can pin the Clip page by pressing Button 1.

6.1.2. Converting Patterns into Clips

It is possible to convert Patterns into Clips in various ways:

- Convert Single Patterns into Clip. For more information, see [Converting a Single Pattern into a Clip](#).
- Convert the Patterns with a Scene into Clips. For more information, see [Converting a Scene into Clips](#).

- Convert Patterns within the loop brace into Clips. For more information, see [Converting the Loop Brace into Clips](#).

Converting a Single Pattern into a Clip

A single pattern can be converted to a Clip using the context menu.

To convert a Pattern into a Clip in the software:

1. Right-click on the Pattern you want to convert and select **Convert to Clip** from the context menu.



You can also use the keyboard shortcut **Ctrl + .** (Windows) or **cmd + .** (macOS) to convert the selected Pattern into a Clip.

Converting a Scene into Clips

All the Patterns within a Scene can be converted into Clips using the context menu.

To convert a Scene into a Clip in the software:

1. Right-click on the Scene you want to convert and select **Convert to Clips** from the context menu.



You can also use the keyboard shortcut **Ctrl + .** (Windows) or **cmd + .** (macOS) to convert the selected Scene into Clips.

To convert the Patterns within a Scene into Clips using the hardware:

1. Press **SHIFT + SCENE (Section)**.
2. Turn Knob 2 to select the Scene you want to convert.
3. Press Button 3 (**CONVERT**).

→ The Scene is converted into clips and added to the Song view.

Converting the Loop Brace into Clips

All Patterns within the loop brace can be converted to Clips using the context menu.

To convert the Patterns within the loop brace into Clips in the software:

- Right-click on the loop brace and select **Convert to Clips** from the context menu.



You can also use the keyboard shortcut **Ctrl + .** (Windows) or **cmd + .** (macOS) to convert Patterns within the loop brace once it has been selected.

To convert Patterns within the loop brace to Clips:

1. Press and hold **SHIFT + RESTART (Loop)**.
2. Press Button 3 (**CONVERT**).

→ All Patterns within the loop brace are converted into Clips.

6.1.3. Switching Focus Between Patterns and Clips

When arranging your song in the Song view you may need to switch focus between editing Patterns or Clips. When you switch focus, the content of the selected Pattern or Clip automatically becomes available in the Editor. Here you can edit your content as required. Additionally, you will notice that Clips can also be freely moved here (as well in the Arranger) and placed anywhere on the timeline.

To switch between editing Patterns and Clips in Song view:

- Press **[C]** on your computer keyboard.
- The software switches focus between the Pattern (in the last selected Section) and the last selected Clip.

6.1.4. Inserting Scenes to an Arrangement as Clips

Once you are satisfied with a Scene you can insert it directly as Clips to your arrangement in the Song view.

To insert a Scene as Clips into the arrangement:

1. In the Song view, right-click at the end of the Section header and select **Insert As Clips**.
2. Then select the name of the Scene you want to insert as Clips.

→ The Scene is inserted into the arrangement as Clips.

To insert a Scene to the arrangement as Clips:

1. Hold **SHIFT + IDEAS (Song)**.
2. Then press Button 1 (**IDEAS**) to enter Ideas view.
3. Press and hold **SCENE (Section)** to enter Scene mode.
4. Press Button 3 (**APPEND**).
5. Press the pad corresponding to the Scene you want to append. You can do this more than once, tapping a series of pads will add all of those Scenes into Sections at the end of the Arranger in one quick step.

7. New Features in MASCHINE 2.10

The following new features have been added to MASCHINE:

- [Auto-Growing Patterns](#)
- [Pattern Offset](#)
- [Pattern Position Indicator](#)

7.1. Auto-Growing Patterns

Auto-Growing Patterns enables you to record patterns of an undefined length. This means that when inspiration strikes, you can quickly capture an idea without having to set a pattern length in advance. Simply begin recording and the length of the pattern will grow until you stop recording, allowing you to maintain your creative flow.

When you have finished recording, any silence at the end of the pattern will automatically be trimmed to the nearest Bar (quantization can be adjusted via grid settings). You can then define the start of your pattern and set its length, to pick the take or part of your recording that you liked best.

Setting Auto-Growing Pattern in the Preferences

Auto-Growing Patterns is enabled by default unless the pattern length is manually changed before recording. However, the Auto-Grow Patterns can be activated/deactivated in the Preferences page of the software.

To enable/disable Auto-Grow Patterns from the software:

1. Select **File** and then **Preferences**.
2. In the Preferences dialog, select **Default**.
3. Check the **Grow Patterns while Recording** checkbox.

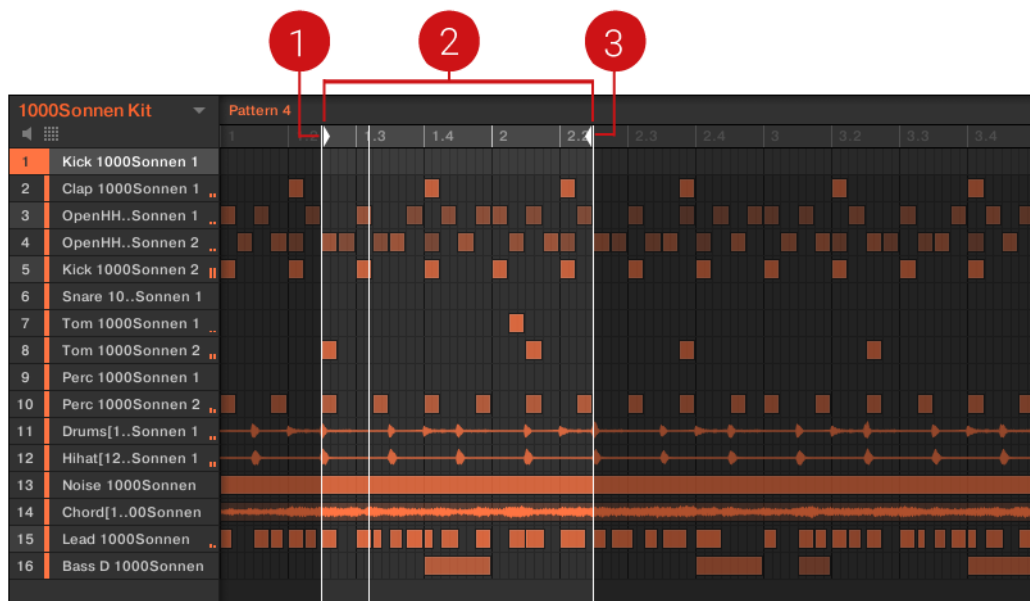


Auto-Grow Patterns is enabled by default, but if you select a defined pattern length, it is automatically disabled for the selected pattern. If you want to use Auto-Grow again, select another pattern or press **SHIFT + Pad 1** on your controller to undo the pattern length selection until you return to **Auto**.

7.2. Pattern Offset

Once you have recorded your pattern and defined a play range using the Start and Length parameters, you can also define a start-offset and move the play range by adjusting the Position parameter.

The Position parameter enables you to freely move the play range throughout the pattern using your MASCHINE controller or by dragging the loop range using your mouse in the software. Events outside of the play range are not deleted and can be once more included in the pattern by changing the start position or by adjusting the length of the play range.



Overview of locators and play range

- (1) Left locator (Start parameter)
- (2) Play range loop brace (Position parameter)
- (3) Right locator (Length parameter)

Adjusting Play Range of a Pattern using the Software

1. To adjust the start position, drag the left locator to the left or right.
2. To adjust the length, drag the right locator to the left or right.
3. To adjust the position of the pattern and create an offset, drag the loop brace to the left or right.



Press **SHIFT** on your computer keyboard to adjust values in smaller increments.



You can also adjust the start and length of the play range numerically using the **Start** and **Length** fields in the top-right of the Pattern Editor.

Adjusting the Play Range of a Pattern using MASCHINE

1. Press **PATTERN**.
2. Select the pattern you want to edit by pressing the relevant pad.
3. To adjust the start position of the play range, turn knob 3 (**START**).
4. To adjust the length of the play range, turn knob 4 (**LENGTH**).
5. To adjust the position of the play range and create an offset, turn knob 1 (**POSITION**).



Press **SHIFT** to adjust values in smaller increments.

Adjusting the Play Range of a Pattern using MASCHINE MIKRO

1. Press **PATTERN**.
2. Select the pattern you want to edit by pressing the relevant pad.
3. To adjust the Start position of the play range, press the right arrow button once to select **Start**, then turn the Encoder.
4. To adjust the length of the play range, press the right arrow button once more to select **Length**, then turn the Encoder.
5. To adjust the position of the play range and create an offset, press the left arrow twice to select **Position**, then turn the Encoder.



Press **SHIFT** to adjust values in smaller increments.

7.3. Smart Strip Position Indicator

The LEDs of the Smart Strip on the MASCHINE MK3 and MASCHINE MIKRO MK3 have been updated to show the playhead position within a pattern or song.

- In Ideas view, the Smart Strip LEDs indicate the playhead position within the selected pattern during playback and recording.
- In Song view, the Smart Strip LEDs indicate the playhead position within the song.

This feature provides great visual feedback to aid your timing when recording or switching up patterns during a live set.



This feature is not available when the Smart Strip modes (Pitch, Mod, Perform, and Notes) are in use.