

LAMBDA II

Real-time Granular Effect

by Riccardo Sellan

USER MANUAL



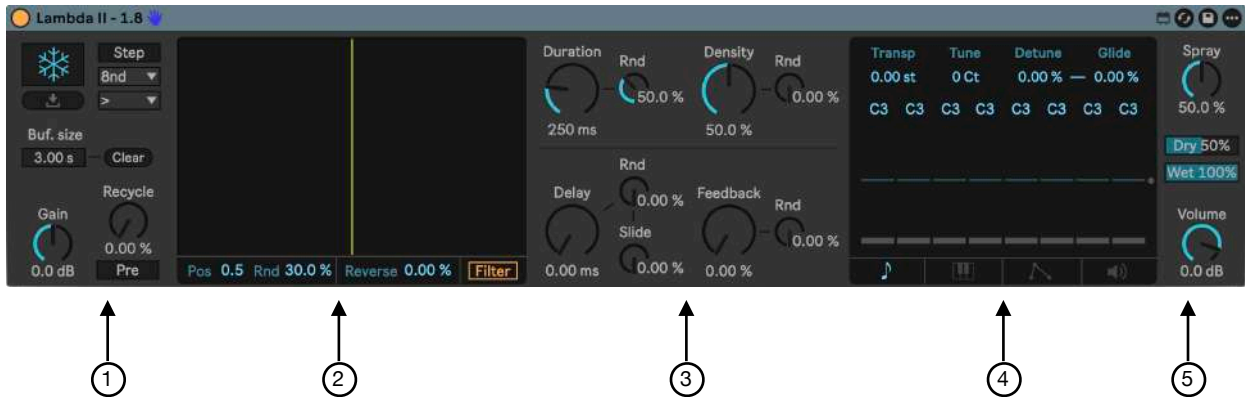
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3D render on the cover by Claudio Bellini

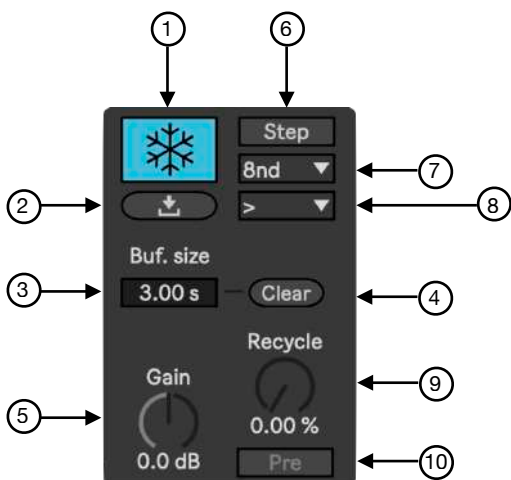
1. Description and Parameters

Lambda II is a Max for Live device for real-time granular effect.

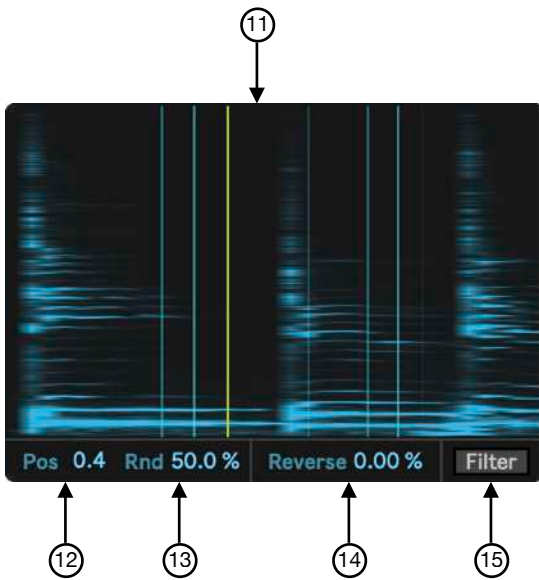


1. Input and mode controls
2. Sonogram and grains visualisation
3. General parameters
4. Voice parameters
5. Output controls

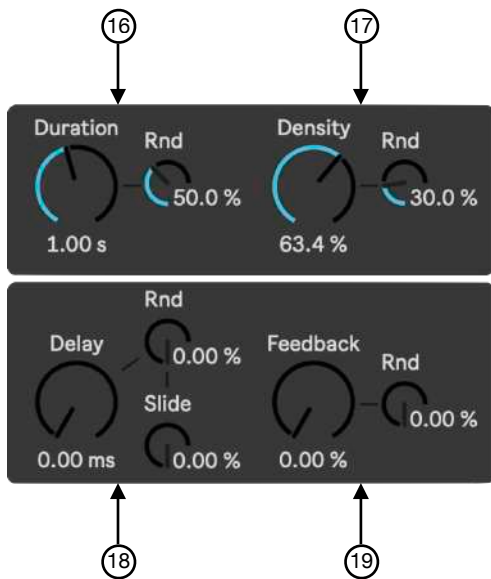
Parameters



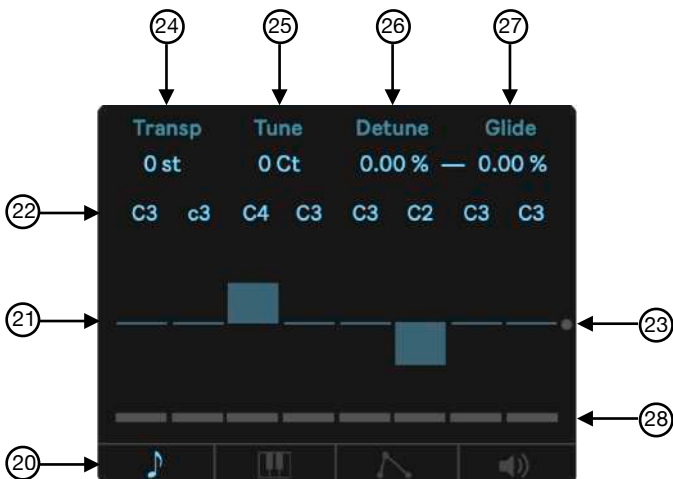
1. **Freeze.** Freeze audio input to work on the frozen buffer audio portion. If it is Off, Lambda processes the real-time audio input .
2. **Store.** Save frozen buffer as file within the project (.wav or .aiff).
3. **Buffer size.** Buffer size to granulate (from 3 s to 60 s).
4. **Clear.** Clear current audio buffer.
5. **Gain.** Input gain.
6. **Step sequencer.** Step sequencer mode in sync with Ableton Live tempo. When a short beat division and a long duration are set, the grain generation is internally limited so to avoid possible glitches.
7. **Beat.** Beat division for Step sequencer mode.
8. **Sequence mode** (>, <, ><, ?).
9. **Recycle.** Percentage of the recycled/overdubbed audio from the input or output stream.
10. **Recycle mode.** With "Pre" the dry input signal will be overdubbed with the set percentage. With "Post" the granulated signal will be recycled in the input signal with the set percentage.



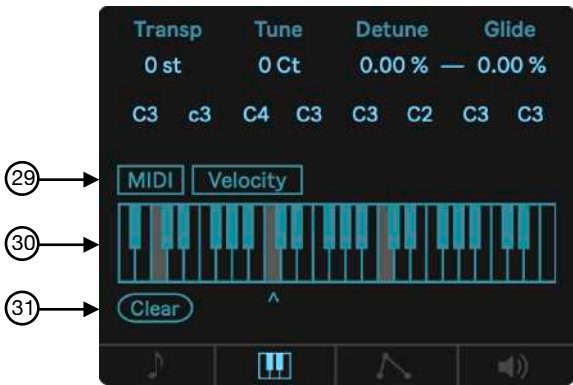
- 11. Sonogram.
- 12. Position. Grain position on buffer. It can be changed with mouse directly on the sonogram.
- 13. Position randomness. Percentage of grains random position.
- 14. Reverse. Reversed grains percentage.
- 15. Filter mode. Filter the input signal into 8 individually granulated bands.



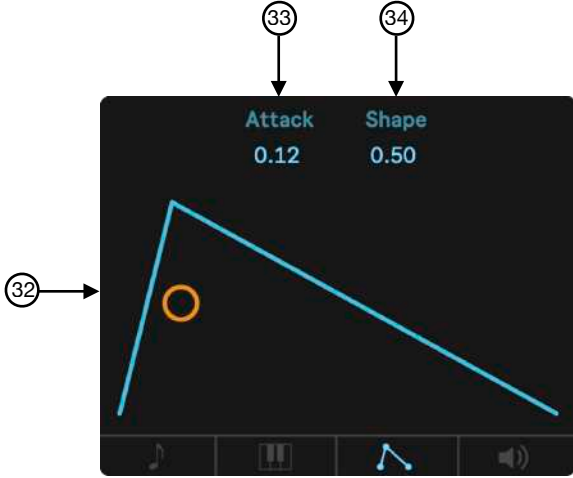
- 16. Duration. Grain duration from 0.1 ms to 5 s. (With random percentage).
- 17. Density. Grain density percentage (With random percentage).
- 18. Delay. Delay applied on each voice. With random percentage each voice will have a different delay value which will change at every generated grain. Slide factor interpolates between one delay value and the next for each grain.
- 19. Feedback. Feedback percentage of delay network. With random percentage each voice will have a different feedback value which will change at every generated grain.



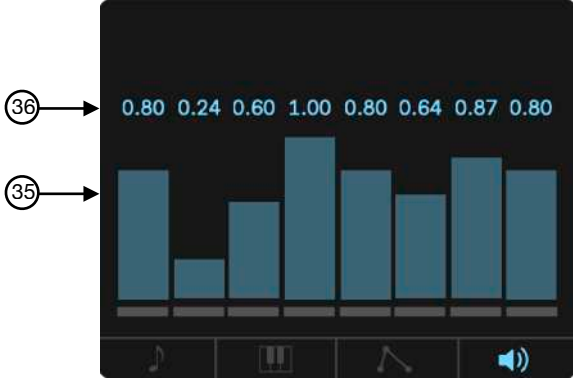
- 20. Voice parameter window (Pitch, MIDI, Envelope, Amplitude).
- 21. Multivoice transposer. Change pitch value with sliders.
- 22. Pitch. View and change note with mouse.
- 23. Reset pitch. Reset all pitches to default value.
- 24. Transposer. Transpose from -24 st to +24 st. It will affect every voice.
- 25. Tune. Fine tune in cents. It will affect every voice.
- 26. Detune. Detuning percentage. It will affect every voice with different detune value.
- 27. Glide. Smoothing factor for Detune parameter.
- 28. Step. Include or exclude voice from the step sequencer.



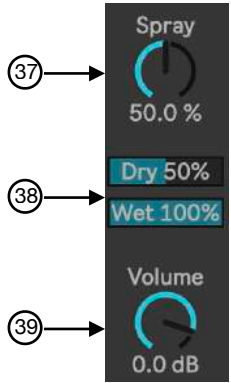
- 29. **MIDI.** MIDI mode allows to play grains with MIDI input. Create a MIDI track in Ableton Live and send MIDI to the Lambda audio track (Live 11 only). With Velocity mode "Off" there is no velocity sensitivity.
- 30. **MIDI Keyboard.** Keyboard for transposition control. Up to 8 notes can be pressed.
- 31. **Clear.** Click to reset the transposition.



- 32. **Grain envelope.** Move the mouse over it to change Attack and Shape parameters.
- 33. **Attack.** Attack factor for grains envelope.
- 34. **Shape.** Shape factor for grains envelope.



- 35. **Multivoice volume.** Change amplitude value with sliders.
- 36. **Amplitude.** View and change amplitude with mouse.



- 37. **Spray.** Stereo spatialization. Every grain has different stereo position (0% means MONO).
- 38. **Dry/Wet.** Dry/Wet ratio.
- 39. **Volume.** Output volume.

2. Troubleshooting

Ableton crash when Lambda II is opened (Win, Mac)

Make sure Ableton is using the latest version of Max. Follow these steps to use the latest version <https://help.ableton.com/hc/en-us/articles/209070309>

Lambda II looks strange (Win, Mac)

Make sure Ableton is using the latest version of Max. Follow these steps to use the latest version <https://help.ableton.com/hc/en-us/articles/209070309>

Lambda II has strange settings of parameters when opening a project

It's probably because the project was opened with the audio engine of Ableton Live set to OFF. Turn ON the audio engine and reopen the project.

When opening the project there is no saved file (Win)

When saving the file, it is necessary to select the file format (.wav or .aiff).

The spectrum looks different if I move Ableton Live to another connected screen (Win, Mac)

Just select another track and return to the track where is the device and all should be looking fine.

In case of any other issue please create a ticket <https://isotonikstudios.freshdesk.com/support/home>

3. Compatibility

Live 12 | full compatibility

Live 11 | full compatibility

Live 10 | no MIDI input (the last version of Max needed, see 2. *Troubleshooting*)

Live 9 | no MIDI input (the last version of Max needed, see 2. *Troubleshooting*)

OS Requirements

Mac

- macOS El Capitan 10.11.6 to Sonoma 14

Windows

- Windows 7, Windows 8 or Windows 10

4. Minimum System Requirements

Mac

- Intel® Core™2 Duo processor. Intel® Core™ i5 processor or faster recommended (it works with M1 and others following)
- 4 GB RAM (8 GB or more recommended)
- 1280x800 display resolution
- Core Audio compliant audio interface recommended

Windows

- 64-bit Intel® (Intel® Core™ i5 processor or faster recommended) or AMD multi-core processor.
- 4 GB RAM (8 GB or more recommended)
- 1366x768 display resolution
- ASIO compatible audio hardware for Link support (also recommended for optimal audio performance)