# L A M 3 D A    I I

## Real-time Granular Effect

by Riccardo Sellan

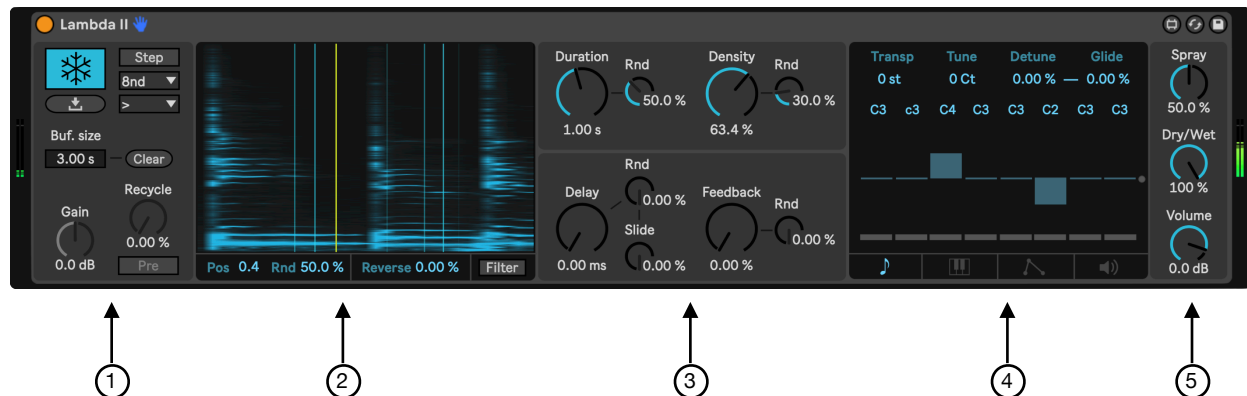## USER MANUAL

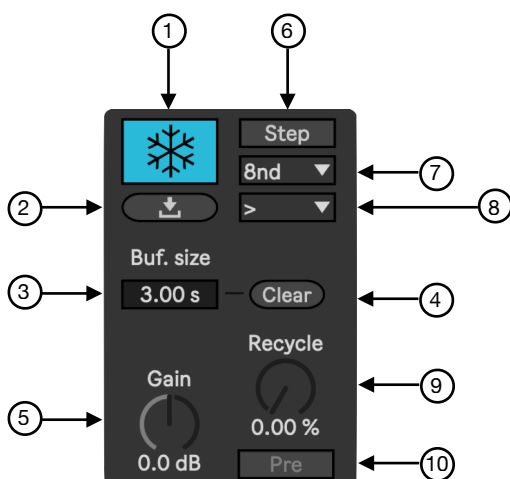# Index

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

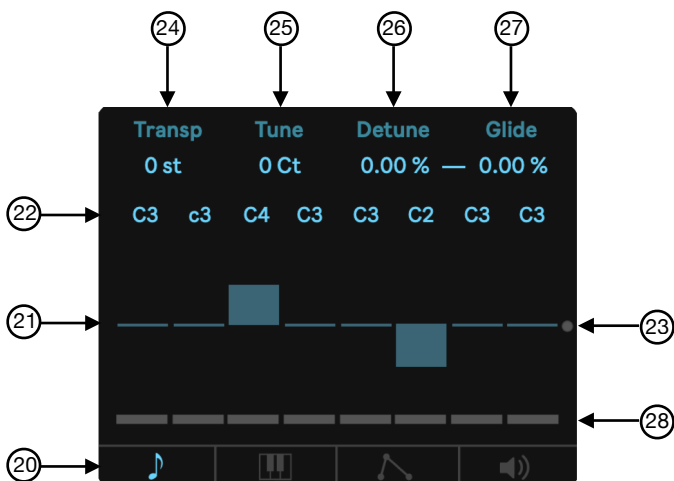4. Voice parameters

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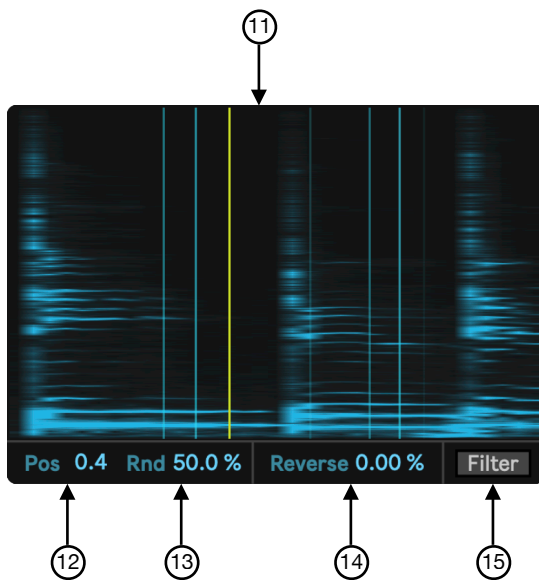
11. **Sonogram**.
12. **Position**. Grain position on buffer. It can be changed with mouse directly on the sonogram.
13. **Position randomness**. Percentage of grains random position.
14. **Reverse**. Reversed grains percentage.
15. **Filter mode**. Filter the input signal into 8 individually granulated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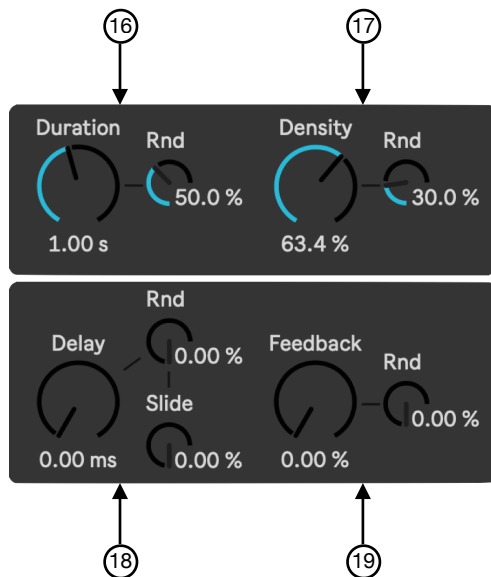


16. **Duration**. Grain duration from 0.1 ms to 5 s. (With random percentage).
17. **Density**. Grain density percentage (With random percentage).
18. **Delay**. Delay applied on each voice. With random percentage each voice will have a different delay value which will change at every generated grain. **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.

4
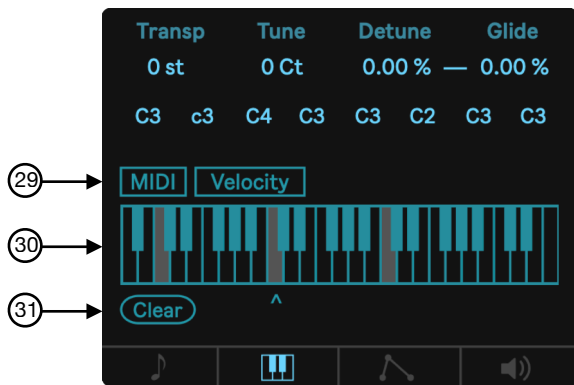
29. **MIDI**. MIDI mode allows to play grains with MIDI input. Create a MIDI track in Ableton Live and send MIDI to the Lambda audio track (Live 11 only). With Velocity mode "Off" there is no velocity sensitivity.
30. **MIDI Keyboard**. Keyboard for transposition control. Up to 8 notes can be pressed.
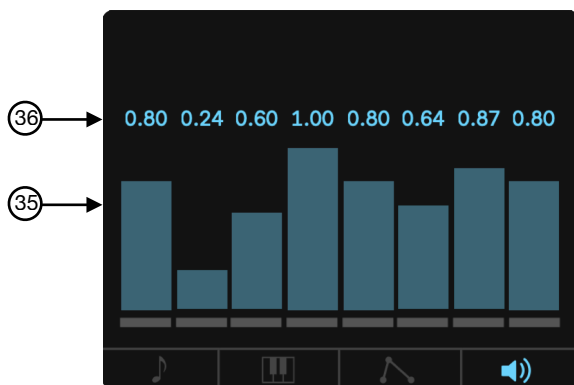31. **Clear**. Click to reset the transposition.
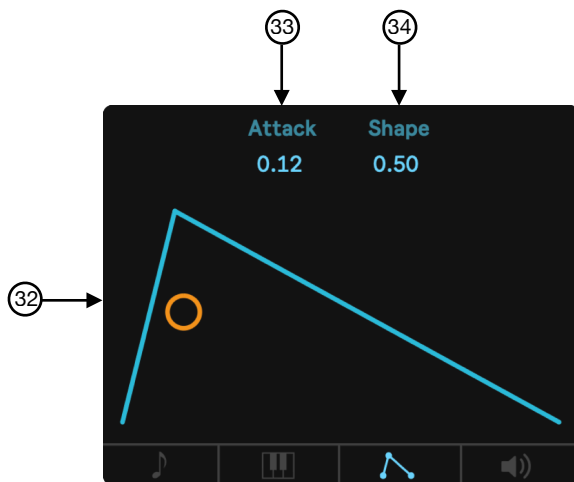


32. **Grain envelope**. Move the mouse over it to change Attack and Shape parameters.
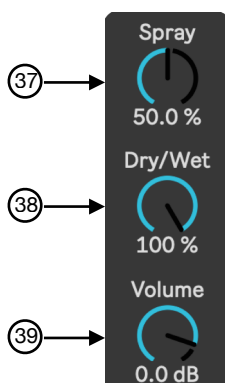33. **Attack**. Attack factor for grains envelope.
34. **Shape**. Shape factor for grains envelope.



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.

5

## 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 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 Ventura 13 (as of 10.1.42)

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)