ACDGEN

HARDWARE VERSION

SPEKTRO AUDIO

spektroaudio.com

USER MANUAL

VERSION 1.00

How to Setup

The ACDGEN HW can used via USB or standard din-5 MIDI jacks. In order to use the MIDI In jack, you first need to open the unit and insert the jumper located in the bottom left corner of the PCB. With the jumper installed, the USB connection can only be used for power. The MIDI Out jack works regardless of the jumper being inserted or not.

Because it doesn't have an internal clock, ACDGEN **must receive a MIDI Clock from another source** in order to playback it's generated sequences.

After making sure it's receiving MIDI Clock (LED will flash **green** when a start message is received), set **Density** fully counter clockwise, hit the **Generate** button and slowly start turning **Density** clockwise in order to start sending MIDI notes to the MIDI destination (USB port or MIDI OUT port).

PARAMETERS & FUNCTIONS

- **Key:** Sets the key for the playback quantizer.
- **Scale:** Toggles between minor and major scale.
- **Algorithm:** Selects which algorithm will be used for pattern generation.
- **Shift:** Transposes the pattern diatonically (in key).
- **Length:** Sets the length of the pattern (2, 3, 4, 5, 6, 7, 8, 16, or 32).
- **Generate:** Generates a new pattern / Creates a variation of the current pattern (long press, LED blinks twice).
- **Function (FN):** Modifier button which allows access to other settings (see below).
- **Octave (FN + Shift):** Shifts the octave of the generated patterns (this setting is stored in memory).
- **Note Len (FN + Length):** Sets the base length of the generated MIDI notes.
- **Vel RND (FN + Density):** Sets the amount of MIDI Velocity randomization.

ALGORITHMS

- **Normal:** A simple and straight-forward random algorithm.
- **Floor:** Uses a smaller selection of notes and has a higher probability of playing the fundamental / base note (great for basslines).
- **FifthOct:** Limits the note selection to the fundamental / base note and it's fifth.
- **Upwards:** Generates a sequence that tends to go up in the selected scale.
- **Up-Stepped:** Similar to Upwards but it can also alternate between higher notes and the fundamental / base note.
- **Downwards:** Generates a sequence that tends to go down in the selected scale.
- **Down-Stepped:** Similar to Downwards but it can also alternate between lower notes and the fundamental / base note.
- **Arpware:** Combines different techniques used in the other algorithms and in regular arpeggiators.

SHORTCUTS (FN + GENERATE)

Certain features can be accessed by holding down Function, tapping Generate *x* number of times and then releasing Function:

- **Swing (FN + 1x GEN, RED LED):** Sets Swing level from 1 to 6 (LED will blink accordingly). Hold FN + Generate for 1 second to reset.
- **MIDI CC Sequencer Toggle (FN + 2x GEN, GREEN LED):** Enables / Disables the internal MIDI CC sequencer.
- **Keyboard Shift Toggle (FN + 3x GEN, PURPLE LED):** Enables / Disables sequence transposition via incoming MIDI notes.
- **Normal / Half Tempo Toggle (FN + 4x GEN, LIGHT BLUE LED):** Switches between normal tempo and half-tempo.
- **LED Note Display (FN + 5x GEN, WHITE LED):** Enables / Disables the display of outgoing notes on the LED.

LED Blink: Action executed
LED Fade In: Parameter Enabled (ON)
LED Fade Out: Parameter Disabled (OFF)

MIDI CC CONTROL

While ACDGEN is a generator it was also designed to be controlled via MIDI Control Changes.

This allows the user to control parameters, create presets and generate new patterns from DAWs or other hardware sequencers.

The LED will flash **purple** whenever the unit receives a MIDI CC message.

CC #	PARAMETER
1	SHIFT
2	LENGTH
3	DENSITY
4	KEY
5	SCALE
6	ALGORITHM
7	RANDOM VELOCITY
8	OCTAVE
9	NOTE LENGTH
10	GENERATE
11	VARIATE
12	SWING

CUSTOMIZATION

The ACDGEN HW can be customized via the **ACDGEN Customizer** software / Max for Live device.

By clicking on the **Save** button on the software's UI, your settings are stored in the hardware memory and recalled on power up.

- **Slide Probability:** Adjusts the ratio of note slides in generated patterns.
- **Shift Range:** Sets the range of the Shift parameter (+/- 12 st, +/- 24 st, or +/- 36 st).
- **Shift Mode:** Selects which mode will be used to shift / transpose the MIDI notes.
- **Swing Mode:** Selects which preset values will be assigned to the the 6 swing levels.
- **Hold Probability:** Sets the probability of generate hold steps (to generate notes longer than 1/16th.
- **Scale Range:** Sets the range of the active intervals available for the first algorithm.
- **MIDI CC Sequencer Toggle:** Enable / Disable the internal MIDI CC sequencer.
- **MIDI CC Number:** Selects the MIDI CC number / destination for the MIDI CC Sequencer.
- **MIDI CC MIN / Max:** Sets the minimum and maximum values of the CC sequence.
- **KB Shift:** Enables sequence transposition via MIDI notes (received via MIDI In).
- **LED Note Display:** Enables / Disables the display of outgoing notes on the LED.

To perform a **Factory Reset**, set all knobs fully clockwise, Scale to Major and power the unit while holding down Function. The LED will remain red for 2 seconds.