IO Labs — Flux Sequencer

- Manual PDF

Flux Open Beta V1.07 User Manual (PDF)

FLUX Eurorack Sequencer Cheat Sheet

A quick-reference guide for using the IOLabs FLUX Temporal Modulation Synthesis® Eurorack module.

Overview

FLUX: A four-channel, 16-step rhythm and CV sequencer featuring novel "Temporal Modulation Synthesis" (TMS) for advanced polyrhythm and timing, per-step parameter locking, internal modulation, and full MIDI and CV support.

Power Consumption

- **+12V:** 160mA
- **-12V:** 50mA
- **5V:** Not used

Connections

Outputs (0–8V for CV outs)

Jack	Function	Range/Notes
1	CH1 Main Rhythm Out (gate/ trigger)	0–5V or 0–8V (typical trigger/ gate)
2	CH1 Aux 1 Rhythm Out	0–5V or 0–8V
3	CH1 Aux 2 Rhythm Out	0–5V or 0–8V
4	CH1 CV Out	0–8V
5	CH2 Main Rhythm Out	
6	CH2 Aux 1 Rhythm Out	
7	CH2 Aux 2 Rhythm Out	
8	CH2 CV Out	0–8V
9	CH3 Main Rhythm Out	
10	CH3 Aux 1 Rhythm Out	
11	CH3 Aux 2 Rhythm Out	
12	CH3 CV Out	0–8V
13	CH4 Main Rhythm Out	
14	CH4 Aux 1 Rhythm Out	
15	CH4 Aux 2 Rhythm Out	
16	CH4 CV Out	0–8V

Inputs

Jack	Function	Range/Notes
17	External Clock	0–8V logic-level pulses
18	Reset	0–8V trigger/gate
19	Start/Stop	0–8V logic
20	Mute All Rhythm Outs	0–8V logic
21	CV In A	0–8V
22	CV In B	0–8V
23	CV In C	0–8V
24	CV In D	0–8V

Panel Elements

Pots & Encoders

No.	Name	Function	Notes
25	Macro Pot 1	Manual modulation source	Assignable to parameters
26	Macro Pot 2		
27	Macro Pot 3		
28	Macro Pot 4		
29	Navigation Encoder	Selects parameters/pages (push = channel -)	

No.	Name	Function	Notes
30	Param Encoder	Changes parameter value (push = channel +)	

Buttons

No.	Button	Function
31	Coarse Nav/ Param (*)	Coarse (xN) navigation or parameter change
32	Edit All (ALL)	Edit all steps at once
33	Micro SD	Micro SD menu (load/save/rename presets)
34	Step Select <<	Previous step
35	Step Select >>	Next step
36	Step On/Off	Toggle step on/off
37	MOD	Enter modulation pages (Evolve LFO, Macro Pots, CV Inputs)
38	Start/Stop	Start or Stop sequencer

Quick Parameter Guide

Rhythm Parameters (Per Step, Channel)

- **PROB:** Probability % (step or per-trigger)
- **LOOP:** Sequence loop range (start > end)
- **MOD:** Select modulation bus (Yellow/Grey/Purple)
- **GATE:** Gate length (% of step/trigger time)
- **DENS:** Trigger density (# per step)

- **CURV:** Temporal curve type
- **VAL:** Temporal curve value (log/lin/exp)
- **DIFF:** Curve division parameter
- **COMP:** Compression/expansion of triggers
- **PHAS:** Phase shift (in degrees)
- **LENG:** Step length (in 16ths)
- **HUMA:** Humanize (1–127, subtle/extreme)
- **MASK:** Logical mute mask (e.g. 1in2, 2in3)
- **MSK>:** Mask shift (starting trigger)
- **AUX1/AUX2:** Select auxiliary output mode (see below)

CV Output Parameters (Per Step, Channel)

- **CVSEL:** LFO, Envelope, Voltage, Random
- **S+H:** Sample & Hold (per step/trigger)
- **MINV/MAXV:** Min/Max CV output (0–8V)
- **ATK/REL:** Attack/Release (Envelope modes, ms?)
- **CURV:** Attack/Release curve shape
- **FREQ:** LFO frequency (Hz or divisions)
- **SYNC:** LFO/envelope retrigger mode (step/trig)
- **QUAN:** # of quantization nodes per V/oct (1–24)
- **QUAN NODES:** Enable/disable individual quant steps

Aux Output Modes (Per Step, Per Out)

- **OFF:** No out
- **ON:** High while running
- **START/SOS/1st/Last:** Trig at start-of-sequence/step/first/last
- **DEL1–8:** Delayed main rhythm out, 1–8 steps/gates
- **TL1–16:** Clock divider by N
- **&, !&, ||, !||, x|| (AND/OR logic):** Real-time logic on main/AUX outs
- **CV>1–7V / CV<1–7V:** Out high if CV above/below threshold
- **PPQ 1–48:** Clock generator, pulses-per-quarter
- **/1–16:** Master divider

Modulation Buses

- **Yellow, Grey, Purple:** Assignable per step for selective modulation routing (manual pots, CV, evolve-LFO modulation)

Workflow—Basic Steps

1. **Install & Power**: Mount, use correct ribbon orientation (red stripe = -12V).
2. **Select Channel/Step**: Use encoders (push left = previous, right = next channel; >>/<< for steps).
3. **Set Parameters**: On main UI, use left encoder to select, right to change.
4. **Edit All Steps**: Press ALL, edit applies to all steps.
5. **Setup Modulation**: Press MOD for modulation pages (Evolve LFOs, Macro Pots, CV Ins). Assign depths/destinations.
6. **Sequence/Loop**: Adjust LOOP/step count, per-step densities, and TMS (CURV/VAL) for unique grooves.
7. **Aux Logic Outs**: Assign per-step utility clocks, logic/gates, delay, dividers.
8. **CV Outs**: Set mode and range for envelopes, LFOs, or stepped voltages—use quantization for pitch output.
9. **Presets**: Press Micro SD to Save/Load. Name up to 8 characters.
10. **Start/Stop**: Use button or external input/MIDI (configure clock mode in CONFIG).

MIDI

- Full clock, note & control support (see iolabs.co.uk/downloads for MIDI guide)

Display

- IPS. Mount flat for best viewing.
- Blinking * = coarse mode; ALL = all-steps editing.

Tips & Pitfalls

- **No Triggers?** Check PHAS, COMP, DENS, MASK, and MOD bus assignment.
- **Dropped Triggers:** Lower DENS if slave devices can't keep up.
- **External Sync:** Prefer EXTS clock mode for best DAW/clock integration.
- **CV Outs:** 0–8V range, quantize as needed.
- **Preset Auto-load:** Last loaded/saved preset loads on next power-up.

Reference Links

- **Official Manual PDF**
- **Support/Downloads**
- **Contact**
