Doepfer — A-143-1

- Manual PDF

Doepfer A-143-1 Manual PDF (Doepfer Website)

Doepfer A-143-1 Quad AD/LFO Quick Reference Cheat Sheet

SUMMARY

The A-143-1 is a quad Attack/Decay envelope/LFO module
Each generator can operate as a triggered AD envelope or a free-running exponential LFO. All controls and jacks are repeated for each of the 4 channels.
Generators can be linked (daisy-chained) internally for complex multi-stage envelopes or LFOs.

Basic Operation Modes:

- **AD:** Functions as a standard envelope (fires on trigger input)
- **LFO:** Functions as a free-running exponential LFO (use dummy cable in Trig. In to prevent retriggering from previous channel)

FRONT PANEL CONTROLS & INDICATORS

Control/ Jack	Type	Description	Voltage Range
1. AD/LFO Switch	Toggle	AD = Envelope, LFO = Free-running LFO	-
2. Attack	Knob	Controls attack (rise) time	-
3. Decay	Knob	Controls decay (fall) time	-
4. Mix Polarizer	Knob	Level/polarity of channel in mix output (center = 0; left = negative; right = positive add)	-
5. Threshold	Knob	Sets level for comparator output “Cp Out”	-
6. Env LED	LED	Envelope activity visual indicator	-
7. Cp Out LED	LED	Comparator state visual indicator	-

ALL INPUTS AND OUTPUTS SUMMARY

Jack	Type	Description	Voltage Range
! Trig. In	Input	Gate/trigger starts envelope or retriggers LFO. Internally normalled in a 4-stage chain.	Gate: >2.5V for trigger
" EOA (EndOfAttack)	Output	Goes **high** at end of attack stage, **low** during attack.	Digital logic (0V/8V)

Jack	Type	Description	Voltage Range
		Can be used to trigger others.	
§ Env x	Output	Envelope/LFO output	0...+8V (AD); +0.5...+8V (LFO)
$ Cp x (Comp Out)	Output	Comparator. **Low** when envelope exceeds threshold; **high** otherwise.	Digital logic (0V/8V)
% Mix Out	Output	Mixer sum (sum of all envelopes/LFOs, level and inversion set by polarizers).	Sum of 4 envs, up to ±32V?*

*Maximum summed voltage at Mix Out depends on how channels are set and mixed.

INTERNAL SIGNAL FLOW

- Trig. In is normalled to the previous channel's Cp Out (default chaining: #1↔#4, #2↔#1, #3↔#2, #4↔#3)
- Envelope Out is pre-polarizer by factory default (can be configured internally to post-polarizer)
- Mix Out sums polarizer-processed envelope outputs from all channels

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TIPS & PATCH IDEAS

- **4 Independent AD Envelopes:** Set all switches to AD, patch triggers to Trig. In as required, take outputs from § Env x.

- **Complex Multi-Stage Envelope:** Leave Trig. In #1 open, set all to AD, send trigger to input 1; others are chained for 4-stage envelope.
- **Free-running Multi-stage LFO:** Switch to LFO mode, insert dummy jacks if you don't want internal retrigger, patch from Mix Out or § Env x.
- **Creative Modulation:** Use Envelope Outs or Mix Out to modulate VCOs, filters, VCAs, etc.
- **Comparator/EOA Outputs:** Use EOA or Cp Outs as logic triggers for sequencing or rhythmical effects.
- **Mix Polarizer:** Invert selected envelopes in the mix for complex waveforms or movement.

VOLTAGE RANGES

- Envelope output:
- AD: **0...+8V**
- LFO: **+0.5...+8V**
- Cp Out, EOA Out: **0V (low) or +8V (high)**
- Input Trig. In: (Gate/trigger): **>2.5V** threshold typical

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MECHANICAL/POWER

- Width: **28 HP / 141.9 mm**
- Depth: **Approx 65 mm**
- Power: **70 mA**

More details in the Official Manual PDF (Doepfer)
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