

Doepfer — A-151 Quad Sequential Switch

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Doepfer A-151 Quad Sequential Switch: using it to build full-length songs

The **Doepfer A-151** is deceptively simple, but for song-making it's one of the most useful “arrangement” tools in Eurorack. It is basically a **4-step sequential switch**: each trigger advances the common jack to the next of four jacks, and a reset returns it to step 1. Version 2 also adds a **2/3/4 step selector** and supports the full **±12V A-100** range.

The key idea for full-length songs is this:

The A-151 is not just for switching signals — it is for switching *states, roles, sections, and musical decisions over time*.

That makes it ideal for moving from “cool loop” to **structured progression**.

What the module does well

From the manual:

- 1 common **O/I** jack
- 4 switched **I/O** jacks
- **Trigger input** advances step-by-step

- **Reset input** returns to stage 1
- **Bidirectional switching**
- 4 inputs → 1 output
- or 1 input → 4 outputs
- LEDs show current stage
- Version 2 can limit to **2, 3, or 4 steps**

In musical terms, that means:

- rotate between **different modulation sources**
- rotate between **different destinations**
- create **repeating sections**
- create **fills and variations**
- route one sequence to different voices
- route multiple timbres into one signal chain
- reset the “form” of a patch at musically meaningful moments

Why it matters for full songs

A lot of modular patches fail to become songs because they lack:

1. **Section changes**
2. **Contrast**
3. **Repeatable structure**
4. **A way to return to “home”**
5. **Controlled variation without repatching**

The A-151 solves all five.

It can act like a **mini arrangement brain** when driven by clocks, clock dividers, trigger sequencers, logic, or manual gate buttons.

Core song-building strategies

1. Use it as a section selector

Patch four different CV or audio “scenes” into the four I/O jacks, and use the common jack as your active output.

Examples of scene sources:

- four different melodic CV patterns
- four different transposition voltages
- four different envelope shapes
- four different drum trigger patterns
- four different filter settings via offset voltages
- four different submixes of voices

Then clock the A-151 **slowly**, not per 16th note. Think:

- advance every 8 bars
- advance every 16 bars
- reset every 32 bars

This turns the switch into:

- **Verse**
- **Pre-chorus**
- **Chorus**
- **Breakdown**

Patch idea

- Four sequencer rows or four stored voltages → A-151 I/O 1–4
- A-151 O/I → oscillator 1V/oct transposition input via precision adder
- Clock divider output → A-151 Trigger
- Master “start of bar 1” pulse → A-151 Reset

Result: each section gets its own harmonic center or melodic contour, but the whole piece remains synchronized.

2. Use it to swap rhythmic patterns over longer timescales

A common modular trap is one great drum loop forever. The A-151 fixes that immediately.

Patch idea

- Four trigger pattern sources into I/O 1–4:
- straight kick pattern
- denser kick variation
- sparse breakdown pattern
- fill pattern
- O/I → kick drum trigger input
- Advance A-151 every 4 or 8 bars
- Reset every 16 or 32 bars

Do the same on another A-151 for hats or snares.

This creates **macro-rhythm evolution**: - section A: restrained groove - section B: busier groove - section C: stripped-down groove - section D: fill / transition

Because the A-151 is sequential and resettable, you can make these changes happen at predictable musical points.

3. Use it as a destination router for one melodic source

Because the switch is bidirectional, you can send one common source to four different outputs.

This is powerful for arrangement.

Patch idea

- Sequencer melody → A-151 O/I
- I/O 1 → bass voice pitch
- I/O 2 → lead voice pitch
- I/O 3 → FM voice pitch
- I/O 4 → sampler / pluck voice pitch
- Trigger A-151 every 8 bars

Now one melodic source gets reassigned to different instruments across the song.

This creates:

- intro: bass only
- verse: lead takes over
- bridge: weird FM reinterpretation
- outro: pluck variation

Very song-like, very efficient.

4. Use it to rotate modulation “moods”

One of the best ways to make sections feel different is not changing notes, but changing **motion**.

Patch idea

Patch four modulation sources into the A-151:

- I/O 1: slow triangle LFO
- I/O 2: stepped random
- I/O 3: envelope loop
- I/O 4: manual offset / fixed voltage

O/I goes to: - filter cutoff CV - wavefolder CV - delay time CV - reverb size CV - VCA CV depth control

Advance every few bars.

This gives each section a new animation style: - smooth - jagged - pulsing - static

That's often enough to turn a repetitive loop into an arranged performance.

5. Use reset to enforce song form

Reset is where the A-151 becomes a real arranger instead of a fancy variation switch.

If you feed the reset input from a master sequencer, clock divider, or end-of-cycle event, you can force the arrangement to return to section 1 at exact boundaries.

Examples: - reset every 64 bars - reset at the start of each performance take - reset after a fill - reset after a manually triggered transition

This makes structures like:

- **A A B A**
- **Verse Verse Chorus Verse**
- **3-step phrase plus reset**
- **4-bar loop with 1-bar fill, then restart**

Even on a pure modular system, that gives you a repeatable backbone.

Best full-song use cases

A. Intro → groove → breakdown → climax

Use the four steps as four energy states.

Step assignments

1. **Intro**
2. sparse percussion

3. low filter cutoff
4. no bass
5. lots of reverb
6. **Groove**
7. kick + hats active
8. bass sequence enters
9. moderate modulation
10. **Breakdown**
11. drums reduced
12. lead or pad emphasized
13. long envelopes
14. transposed harmony
15. **Climax / fill**
16. full drums
17. open filter
18. extra modulation
19. denser trigger pattern

Advance one step every 8 or 16 bars, then reset after step 4.

This is probably the most direct way to use the A-151 for song form.

B. Verse / chorus harmonic switching

If you already have a melodic loop, the easiest way to make it song-length is to change harmony while preserving rhythm.

Patch idea

- Main melody CV stays constant
- A-151 switches among four transposition voltages:

- 0 semitones
- +5 semitones
- +7 semitones
- -2 semitones
- Output goes through a precision adder with the melody CV
- Advance every 8 bars

Now the same motif behaves differently across sections.

This is especially strong for techno, ambient, synth-pop, and Berlin-school style modular songwriting.

C. Drum arrangement manager

The A-151 is excellent for selecting among several trigger streams for one drum voice.

For example, on the snare:

- I/O 1: backbeat only
- I/O 2: backbeat + ghost note
- I/O 3: sparse breakdown snare
- I/O 4: snare roll fill

Or on hats: - I/O 1: 8ths - I/O 2: 16ths - I/O 3: offbeat only - I/O 4: burst pattern

By clocking the switch from a divider or trigger sequencer, you gain arrangement without touching the patch.

D. Bassline evolution without changing voice

Take four pitch or gate variations of one bassline and let the A-151 rotate through them.

Example

- same rhythm, four pitch variants
- or same pitch row, four gate densities
- or four different accent envelopes

Use: - Trigger every 4 bars - Reset every 16 bars

This gives a familiar repeated motif that still develops, which is exactly what full songs need.

E. Call-and-response with one sequencer

Because the switch is bidirectional, one sequence can address different voices in turn.

Patch

- Sequencer CV/gate to O/I or parallel utility routing
- I/O 1 → bass
- I/O 2 → lead
- I/O 3 → chord voice
- I/O 4 → percussion modulation destination

Each section sends the same compositional material somewhere else.

This produces a strong sense of **orchestration over time**, even with limited gear.

Advanced song-form techniques

1. Pair it with a clock divider for long arrangements

The biggest mistake is clocking the A-151 too fast. For song structure, use divided clocks.

Useful sources: - /16 - /32 - /64 - end-of-pattern pulse from a sequencer

Examples: - advance every 2 bars for lively IDM - every 4 bars for pop-like phrasing - every 8 bars for techno sections - every 16 bars for long-form ambient evolution

A clock divider or trigger sequencer is almost essential here.

2. Use the 2/3/4 step switch for asymmetrical sections

On version 2, the step-count switch is very useful musically.

2-step mode

Perfect for: - verse/chorus alternation - A/B harmonic toggling - dry/wet alternation - kick pattern variation

3-step mode

Great for: - 3-part phrases - “expectation breaking” loops - polymetric song movement - A/B/C forms

4-step mode

Best for: - full cycle song structures - intro / verse / bridge / chorus - four-stage energy build

Three-step mode in particular can help avoid the too-square feeling many modular patches have.

3. Use it with logic modules for fills and conditional transitions

If you combine the A-151 with logic or comparator modules, you can get more performable structures.

Examples: - trigger advance only when a gate is high - reset only when a manual button and end-of-bar pulse coincide - alternate between two steps unless a fill trigger forces step 4 - use probability to occasionally skip to the next state

This lets the A-151 behave more like a song-aware router than a simple rotary switch.

Useful partner modules: - logic - AND/OR combiners - comparators - Bernoulli/probability gates - sequential trigger generators

4. Build “scene memories” with fixed voltages

The A-151 doesn't store voltages itself, but it can select among four prepared voltages.

If you patch four offsets into it, each step can define a different global setting for: - filter cutoff - effect send amount - wavefolding depth - drum decay - VCA bias - oscillator FM amount

Think of these as **song scenes**.

If one A-151 changes pitch/transposition and another changes timbre offsets at the same time, your sections become much more convincing.

5. Switch submixes, not just single signals

A high-leverage technique is feeding the A-151 with outputs from mixers or VCAs rather than individual raw voices.

For instance: - I/O 1 = dry drum bus - I/O 2 = drum bus + clap send - I/O 3 = filtered drum bus - I/O 4 = FX-heavy drum fill bus

Or: - I/O 1 = bass voice only - I/O 2 = bass + pad - I/O 3 = lead + hats - I/O 4 = full ensemble

Now the A-151 is selecting between **arrangement layers**, not just single waveforms.

That's much closer to how songs are actually structured.

Practical full-song patch recipes

Patch 1: 4-section techno arranger

Modules

- master clock
- clock divider
- drum sequencer or trigger sequencers
- bass sequencer
- 1–2 voices
- filter
- VCA
- mixer
- A-151

Patch

- Four kick patterns → A-151 #1 I/O 1–4
- A-151 #1 O/I → kick trigger

- Four transposition voltages → A-151 #2 I/O 1–4
- A-151 #2 O/I → precision adder → bass voice pitch
- Clock divider /32 → both A-151 triggers
- Reset at 64-bar boundary → both reset inputs

Section plan

1. intro: no kick or sparse kick, low bass transpose
2. groove: main kick pattern, bass enters
3. breakdown: reduced kick, alternate transposition
4. peak: denser kick/fill, brighter bass section

This creates a loop with real macro-development.

Patch 2: Ambient evolving composition

Use case

Less about verse/chorus, more about gradual scene morphing.

Patch

- Four modulation sources → A-151 I/O 1–4
- O/I → filter cutoff CV
- Another A-151:
 - four audio sources or four FX-return levels
 - selected into one main path
- Trigger both from a very slow clock or manual gate
- Reset only occasionally or by hand

This works well for: - drone albums - generative pieces with recurring structure - live ambient sets where section changes should be subtle but intentional

Patch 3: Songified acid line

Problem

Classic acid patches loop endlessly.

Solution

Use the A-151 to rotate among: - four accent patterns - or four gate patterns - or four transposition offsets

Patch

- one 303-style pitch line remains constant
- A-151 switches among four gate/accent variants every 8 bars
- reset every 32 bars

Result: - same hook - changing phrase articulation - recognizable identity with long-form variation

Very effective.

Patch 4: Keyboard performance song mode

The manual notes that a keyboard gate can trigger switching. This is excellent for performable songs.

Patch

- keyboard gate → A-151 trigger
- four envelopes into A-151
- A-151 output → filter CV

Each played note advances to a new articulation.

Expand that concept: - use one A-151 for filter envelope choice - one for oscillator waveform source selection - one for effects send amount

Now playing successive notes naturally creates song progression. This is especially good for: - live synth-pop - modular lead performance - arpeggiated melodic storytelling

Great module partners for the A-151

Sequencers

Use with: - pitch sequencers - trigger sequencers - gate sequencers - CV recorders

Why: - switch between phrases - direct one phrase to multiple roles - arrange patterns across bars

Clock dividers / multipliers

Use with: - Pam's-style clocks - divider trees - trigger delays

Why: - create musically meaningful section lengths - sync transitions to bars and phrases

Precision adders / quantizers

Use with: - transposition voltages - melodic scene changes

Why: - preserve tuning while changing section harmony

VCAs and mixers

Use with: - layered voice groups - envelope-dependent scenes - submix switching

Why: - turn simple switching into arrangement-level changes

Logic / probability

Use with: - fills - conditional resets - performance interaction

Why: - make transitions less mechanical

Envelopes and modulation sources

Use with: - different animation profiles for each section

Why: - sections feel composed, not merely switched

Important musical tips

1. Think in bars, not triggers

For full songs, don't ask: - "what happens every pulse?"

Ask: - "what happens every 4 bars?" - "what happens every 8 bars?" - "what returns every 32 bars?"

That is where the A-151 shines.

2. Reset is composition

Without reset, the switch just cycles. With reset, it becomes form.

3. Use multiple A-151s for coordinated scene changes

One can change: - rhythm

Another: - harmony

Another: - timbre

Triggered together, they create convincing section shifts.

4. Don't switch too many things at once

If every parameter changes on every section, it can sound arbitrary. Usually best: - 1 rhythmic change - 1 harmonic/timbral change - 1 textural change

5. Create tension by delaying one layer

For example: - drums change at bar 9 - bass changes at bar 13 - melody changes at bar 17

You can do this with separate A-151s driven by different clock divisions or reset structures.

Limitations and how to work around them

No voltage address

The A-151 is sequential, not CV-addressed. So you can't directly jump to arbitrary steps via CV.

Workaround

Use: - reset cleverly - different trigger streams - companion sequential switches - manual triggers for performance

It switches one path at a time

So it doesn't mute/unmute many parts independently like a matrix mixer.

Workaround

Use it upstream of: - VCAs - mixers - submixes - logic-controlled gates

Audible switching may be noticeable with some material

That can be a feature or a bug.

Workaround

- switch at phrase boundaries
 - use envelopes/VCAs to soften transitions
 - embrace it for rhythmic cuts and glitches
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My favorite full-song roles for the A-151

If I were using this module specifically to turn loops into songs, I would prioritize these roles:

1. **Section transposition selector**
2. **Drum pattern rotator**
3. **Envelope/timbre scene selector**
4. **Voice reassignment router**
5. **Breakdown/fill reset controller**

Those five uses alone can create surprisingly complete arrangements.

Example full arrangement concept

Here's one practical "whole song" concept using a single A-151.

Song structure

- 8 bars intro
- 16 bars verse groove
- 8 bars breakdown
- 16 bars chorus/peak
- reset and repeat with small live tweaks

A-151 assignment

- I/O 1: sparse drum pattern + dark filter offset
- I/O 2: full groove pattern + root bass transpose
- I/O 3: reduced drums + higher reverb send
- I/O 4: dense hats/fill pattern + brighter filter + fifth transpose

Control

- advance every 8 bars
- reset after step 4

Even with just one switch, that's a real song form.

With two or three A-151s, it becomes a serious modular arrangement system.

Bottom line

The **Doepfer A-151** is a classic "small utility, big compositional impact" module.

It helps create full-length songs by giving you a way to:

- organize **sections**
- rotate **patterns**
- vary **timbre**
- redirect **melodies**
- control **energy flow**
- create **repeatable form with resets**

In other words, it helps solve the modular problem of being stuck in a great 8-bar loop.

Used with clocks, dividers, sequencers, VCAs, mixers, logic, and a few carefully chosen modulation sources, the A-151 can become a compact but powerful **song-arrangement engine**.

Generated With Eurorack Processor