

Doepfer — A-160-2

- [Manual PDF](#)
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[A-160-2 Clock/Trigger Divider II Manual \(PDF\)](#)

Using the Doepfer A-160-2 to Create Full-Length Eurorack Songs

Many modular synthesists excel at developing punchy loops: patterns for beats, basslines, melodies, or textures that sound amazing in isolation, but find it challenging to turn those into structured, evolving, full-length tracks. The **Doepfer A-160-2 Clock/Trigger Divider II** provides powerful clock and trigger division tools to help unlock song structure, variation, and progression in a modular setup. Below are several creative approaches to use the A-160-2, in combination with other modules, to span from pattern to song:

1. Song Structure via Sequencing Clock Divisions

The A-160-2 can divide the master clock into musical subdivisions (e.g. 1/2, 1/4, 1/8, down to 1/128) and prime/integer divisions. By patching these divisions to various modules, you can:

- **Trigger Different Sections:** Send a divided output (e.g. /16) to switch a sequential switch or a voltage-controlled mixer. Every

16th beat, route a new melodic, bass, or drum pattern into the mix, creating a verse or chorus.

- **Automate Muting:** Use divided clocks to open/close VCAs or toggles, muting or revealing voices and rhythmic elements across your composition.

Example Patch:

- **/16 Output** triggers a sequential switch, cycling between two sequences: a verse (melodic sequence A) and a chorus (sequence B).
 - **/32 Output** advances a scene on a performance mixer (e.g. Mutable Instruments Frames, or similar), changing the blend of percussion and leads.
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2. Generative Change and Variation

Song-length interest comes from variation. Patch different divider outputs to change modulation or pattern sources over time:

- **Modulation Cycling:** Clock a modulation source (like an LFO, envelope, or random generator) at a divided rate to periodically change filter cutoff, oscillator waveform, or reverb mix for different song sections.
 - **Randomization Triggers:** Send divided pulses to trigger “sample & hold” or random voltage generators, then route those values to VCO pitch, filter, or FX parameters for evolving timbre.
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3. Creating Song-Length Envelopes or Events

The reset input and flexible division options make the A-160-2 excellent for controlling song-scale events:

- **Start/End Events:** Use the reset input to sync all divisions at the start of the song, or when restarting from DAW clock or footswitch—this makes the patch repeatable and performable.

- **Triggers for Song Edits:** Send slow division triggers (e.g., /128) to cue major changes, like a breakdown, drop, or big modulation move.
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4. Complex Polyrhythms and Time Signature Changes

The prime and integer division modes create polyrhythms and non-standard meters not easy with regular binary clock divides:

- **Polyrhythms:** Use, for example, /3 and /5 outputs to trigger percussion against a standard /4 kick drum—creating evolving, complex grooves.
 - **Cross-rhythms for Builds/Breaks:** Dynamically switch the division set (power of two, prime, or integer) during performance for time signature and groove changes—use a manual switch, or automate with CV (if switch is hackable).
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5. Performance Tools and Hands-On Playability

- **Live Section Transitions:** Flick the front panel switches to change between division sets for live fills, breakdowns, or sudden changes.
 - **Gate/Trigger Modes:** For more expressive drums, use gate mode for sustained basslines or trigger mode for quick percussion hits. Changing mode can alter the feel of sections on the fly.
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6. Practical Combinations with Other Modules

To maximize the module's song-structuring power, use in tandem with: - **Sequencers:** (e.g., Make Noise Rene, Intellijel Metropolis) for pattern changes clocked by divided outputs. - **VCAs, Mixers, and Switches:** For muting/unmuting, crossfading sections. - **Envelopes and LFOs:** For

evolving modulation landscapes, clocked at musical divisions. - **Random/S&H Modules:** For generative, non-repeating change. - **Logic/Clock Manipulation:** Combine division outputs with logic (AND/OR/XOR) to create even more complex triggers/events.

Summary Table: Use Cases

| Output/Feature | Use in Songwriting |
|-----------------------|---|
| /16, /32, /64 Outputs | Section or pattern changes, scene switching |
| Reset Input | Start/end events, syncing new sections |
| Prime/Integer Modes | Polyrhythms, time signature shifts |
| Gate/Trigger Modes | Drum vs. melodic lines variation |
| Multiple Divisions | Evolving layers/rhythms, parameter changes |

Conclusion

By harnessing the A-160-2's precise, musical divisions and its ability to control and automate structural elements, you can transcend the loop—and assemble full-length, dynamic modular songs with evolving form and surprise.

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