

ADDAC Systems – ADDAC-402

Heuristic Rhythm Generator

- [Manual PDF](#)

[ADDAC402 User Manual PDF](<http://addacsystem.com/sites/default/files>)

ADDAC402 Heuristic Rhythm Generator – Cheat Sheet

OVERVIEW

4 independent gate/trigger channels. Generates rhythms with multiple patterns. Visual feedback via OLED screen and LEDs.

FRONT PANEL CONTROL SUMMARY

Jacks

Jack Number	Label/Type	Function
14	Fills/Parameter B CV Inputs	CV for Fills/Parameter B
15	Inverted Gate Outputs	Inverted gate/trig outputs
16	Gate Outputs	Main gate/trig outputs
17	Play/Pause Trigger Input	Clock in for play/pause
18	Clock Trigger Input	Master clock
19	Master Reset Trigger Input	Resets all sequences
20	Swing / Assign CV Input	Assignable CV input

Knobs & Encoders

- **Preset Selector & Menu Scroll (3):** Select/load/save presets,

- **Swing/Assign (4):** Default = swing, assignable per config, act
- **Steps / Param A (7):** Adjust steps/parameter A (per channel/all)
- **Fills / Param B (8):** Adjust fills/parameter B, attenuator when

Buttons

- **Mode Info/Menu/Enter (2):** Short = info/menu select; Long (3s)
- **Play/Pause (5):** Start/stop transport
- **Skip Step (10):** Skip/rotate current channel pattern
- **Resets (11):** Reset individual voice sequence to start
- **Master Reset (12):** All voices reset to step 1
- **Mode Select (13):** Advance to next mode

Toggles

- **Gate/Trigger Switches (9):** Per-voice, sets output as gate or

Visual

- **OLED Display (6):** Parameters and current pattern feedback
- **LEDs (1):** Per-channel gate state

ALGORITHMS / MODES

Cycle with Mode Select button, in this order:

1. **Euclidean:** STEPS = total steps, FILLS = # of "on" steps, SKIP =
2. **Gate Sequencer:** Up to 32 steps/channel. STEPS = pattern length
3. **Game of Life:** FILLS=#bars, SKIP=next gen, RESET=new pattern,
4. **Golomb Rulers:** FILLS=choose ruler, outputs marks at unique intervals
5. **Probabilistic:** FILLS=probability%. Probability "used up" sequence
6. **Footwork:** STEPS=trigger length, FILLS=main controls (see screen)
7. **Pong:** Ball bounces per wall triggers channels 1–4. Pad size, etc.

Preset Management:

Up to 16 patterns (presets) per mode (Euclidean, Gate Seq). Use Preset

CONFIGURATION MENU

Long-press the Menu button for config options. Key assignments incl

- Trigger time (2–32 ms)
- Gate time (fractions of step)
- Assign what the Swing/Assign knob and CV control (can be SWING, P
- MIDI bridge config (needs expansion module)

Swing:

- **Default:** Delays steps for groove.
 - 1st 1/4 = swing on every 3 clocks
 - 2nd = 4, 3rd = 6, 4th = 8
- **Assignable:** Knob or 0–5V CV

JACKS – DETAILED REFERENCE

JACK	DIRECTION	SUMMARY
Gate Out (x4)	OUT	Main gate/trigger output
Inverted Gate Out	OUT	Inverted logic of gate output
Fills/Param B CV	IN	Per-voice Fills/Param B CV
Swing/Assign CV	IN	Global assignable CV (see config)
Play/Pause Trig	IN	Gate or trigger to start/stop
Clock In	IN	External clock input
Master Reset Trig	IN	Gate/trigger resets all patterns

TIPS

- Knob values only "take over" after crossing the saved value when
- Manual swing is global, per-trigger/gate (delay every Nth clock d
- All CV inputs: 0–5V recommended, 0V = min, 5V = max.
- Save/load per-mode; configurations are remembered at power up/dow
- In algorithms where STEPS/FILLS are inactive, CV/knobs do nothing

LINKS

- [Official ADDAC402 Manual PDF](http://addacsystem.com/sites/default/files/ADDAC402_Manual.pdf)
- [Generated With Eurorack Processor](<https://github.com/nstarke/eurogen>)