

GEODESICS

A modular collection for VCV rack by Pyer & Marc Boulé



What's New? - version 0.6.1

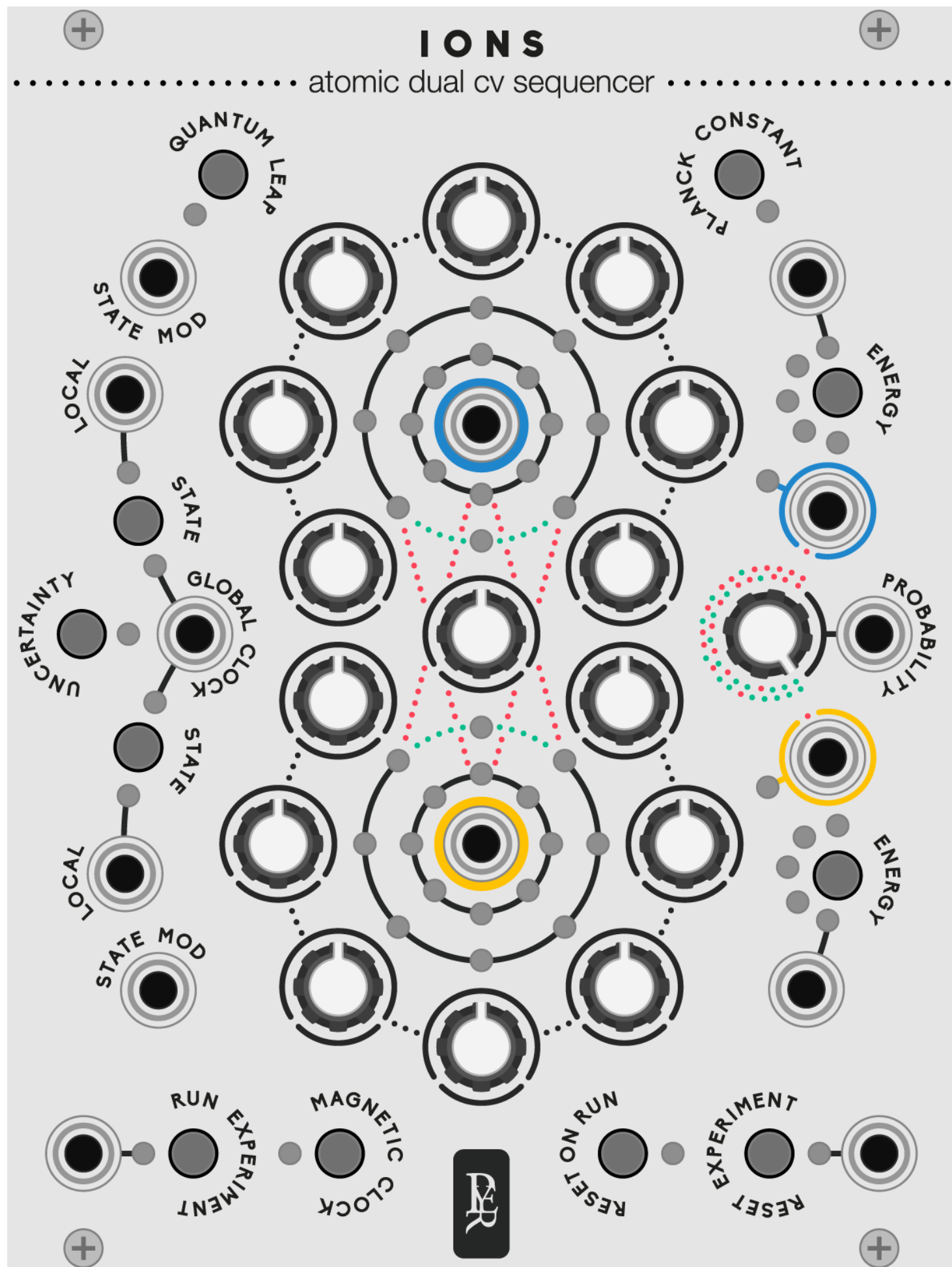
T O T H E R E A D E R

Note on who is concerned...

This file is only intended to anyone who already read the manual of the previous version. It garthers all the changes that you need to know.

There is no point to read this if your are a new user, or if you haven't read the manual of the previous version. You would be then encouraged to read the complete manual of the current version.

Thanks.



IONS

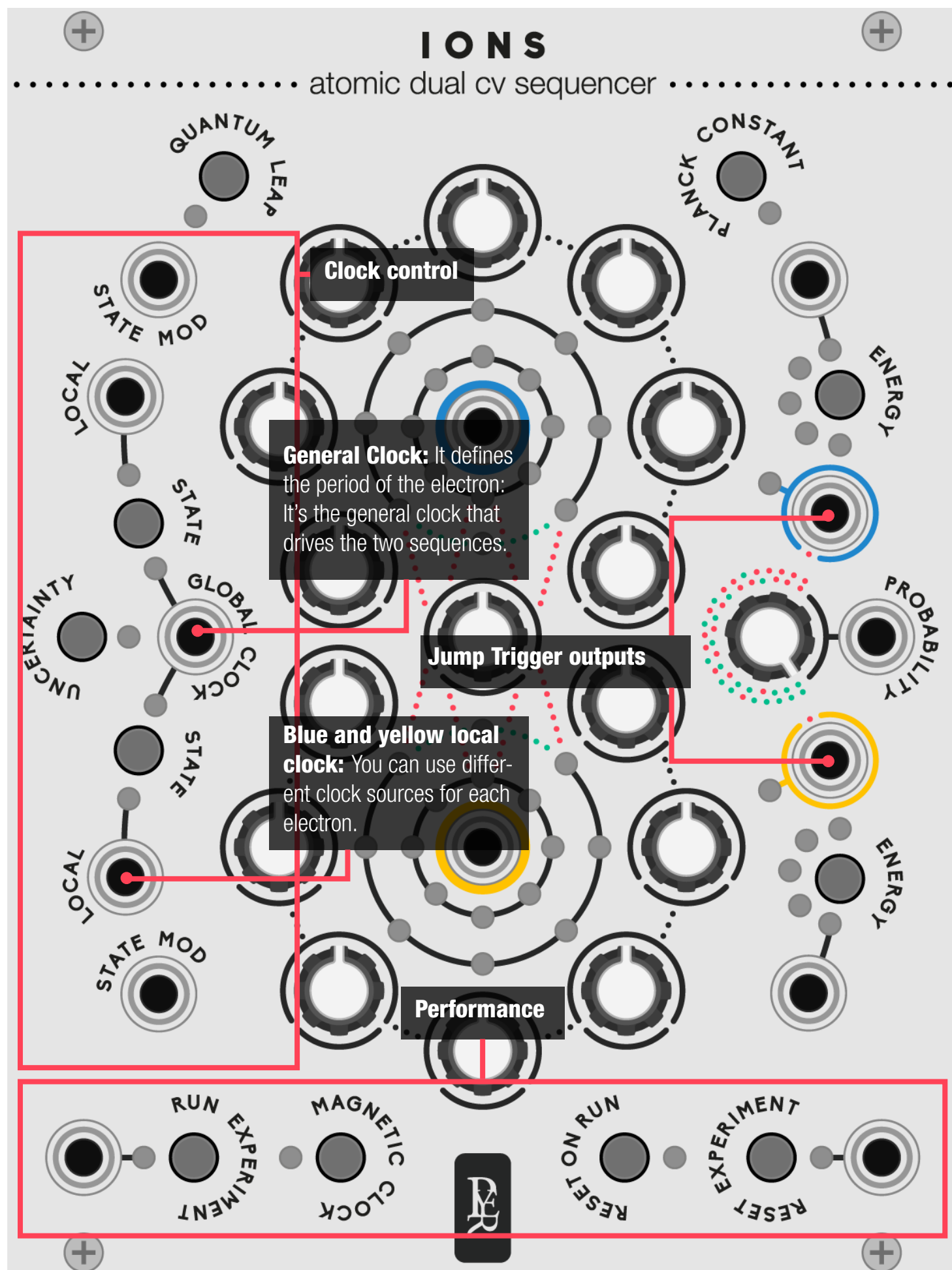
atomic duophonic voltage sequencer

Goodbye

- The Super symmetry mode has been deleted.
- All right click features are now on the main pannel.

Hello

- More CV control
- Change of behaviour of energy and Planck mode
- New trigger at jump outputs
- New manual clock for programming.
- New uncertainty random mode - kind of...

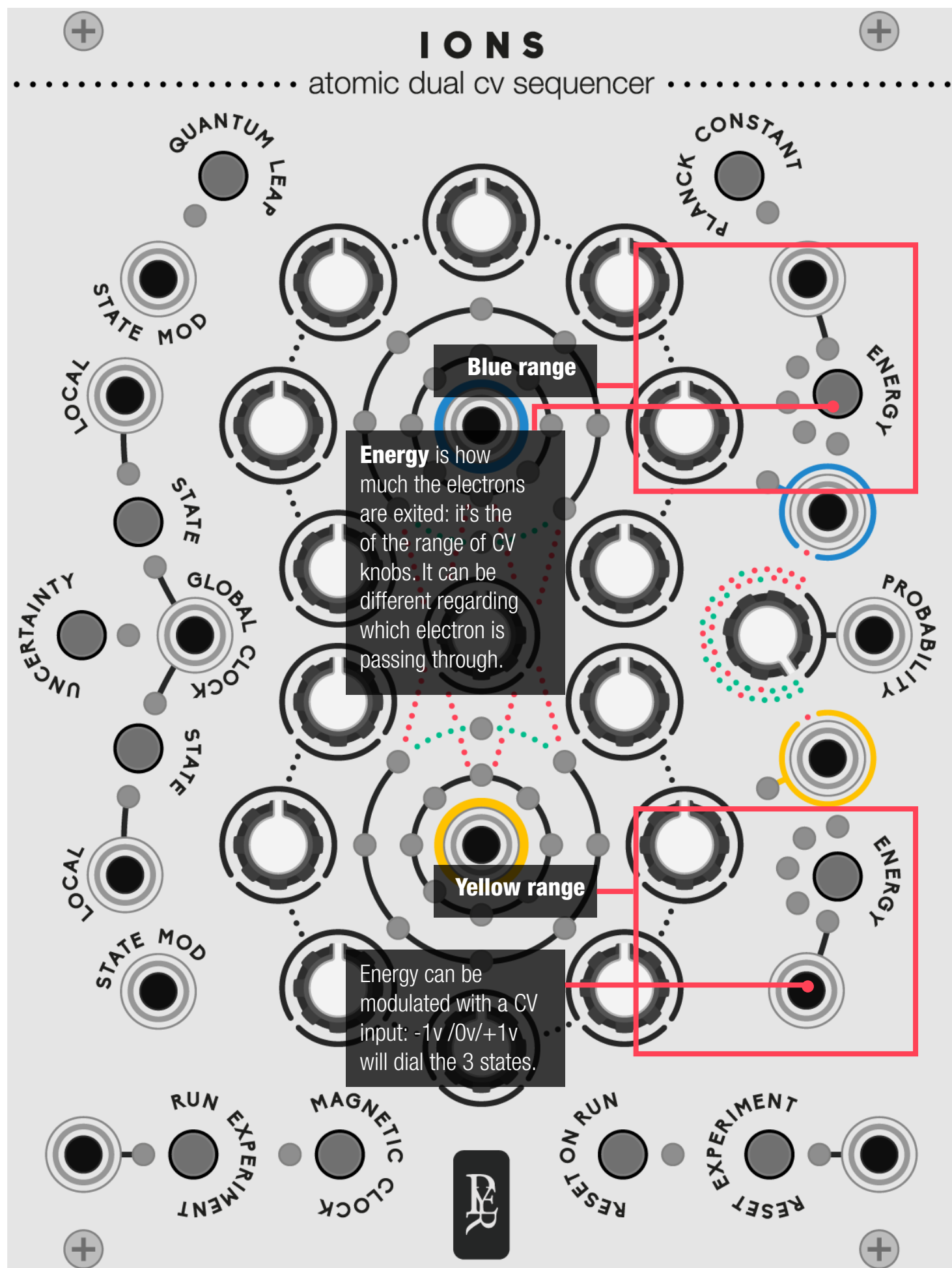


In Depth:

State Mod can be modulated with a CV input: -1v will use the local clock. +1v will use the global clock. Anything in between will use both clocks

The magnetic clock will excite the electrons in an alternative way: It's a manual clock. It is active when the experiment is not running, to set the CV value step by step. It is also active when the experiment is running, to interact with the sequence manually, adding a bit of human mess.

The Jump Trigger outputs are emitted a trigger each time at each jump from one electron to another.



New CV Behaviour:

Energy is the range of the CV knobs. Each electron has its own energy setting. When passing through a CV step, the blue electron can interpret the value with a different range than the Yellow one would do if it passes through the same step. The behaviour of energy is depending on the Planck constant.

The Planck Constant: In 1900, Max Planck discovered that the electrons were not sharing energy on a smooth and continuous way, but by very small bits: “quantums”. The Planck mode will quantise the CV output and modify the energy behaviour.

When the Planck constant is OFF, IONS is a smooth CV sequencer with Energy defining the range of CV:



-/+ 1 volt



-/+ 5 volts



-/+ 10 volts

When the Planck constant is ON, IONS is a chromatic sequencer with Energy defining the range of CV:



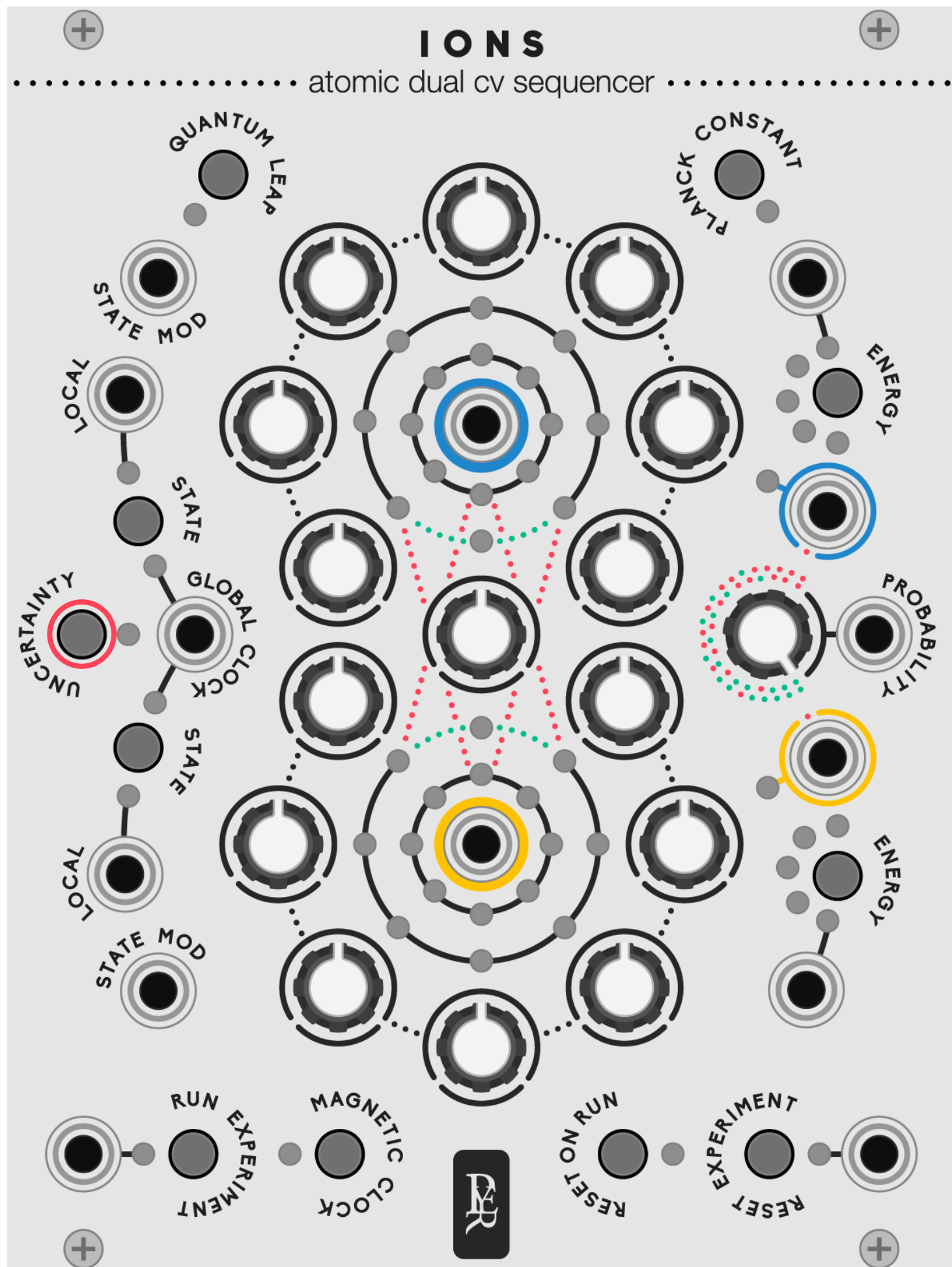
1 octave



3 octaves



5 octaves



NewAlternate Modes

Uncertainty principle. In quantum mechanics, Heisenberg discovered that there is no way to know with certitude both the speed and the position of a particle. Uncertainty will add different flavours of randomness in the position of the electron.

- Every trigger sent by the local clocks will move the electrons forward on a random number of steps (small values are more likely, for musical purposes).
- Every trigger sent by the reset button will place the electrons in a random place in the sequencer.
- Every trigger sent by the global and magnetic clock will continue to work normally, one step at the time.

With Uncertainty mode ON, 4 levels of randomness can be achieved:

- **Order:** using only the global clock will move the electrons on a regular step by step way.
- **Casual random:** using both global and local clock input, with a regular clock on global and an occasional clock on local (divided, gate sequence or even manual trigger) to have some random jumps in a regular sequence
- **Linear random:** using only the local clock to have a forward random walk.
- **Chaos:** sending a clock into the reset input to have a complete random sequence. In this case, the jump probability becomes useless.

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Coded and released by Marc Boulé

Manual - Concept - Visuals © Pierre Collard 2018