

Split Resonator Bank - Description

The "Split Resonator" configuration uses the C15's Split mode to model an Exciter-Resonator relationship – recurrently seen in acoustic sound creation.

In Split mode the total amount of voices are divided into two Parts and assigned to two separate keyboard ranges:

- **Part II acts as Exciter:** it generates short percussive impulses or tone bursts – similar to a pluck or a piano's hammer – or a continuous signal, resembling a bow moving on a string instrument. It shall be played with the right hand between the Split Point and the highest key.
- **Part I acts as Resonator:** it creates the actual tone by the oscillations of the Comb Filter, mimicking how waves propagate in a geometry and are reflected at its boundaries. It generates sounds only when it receives an exciter signal and it shall be played with the left hand between the lowest key and a Split Point.

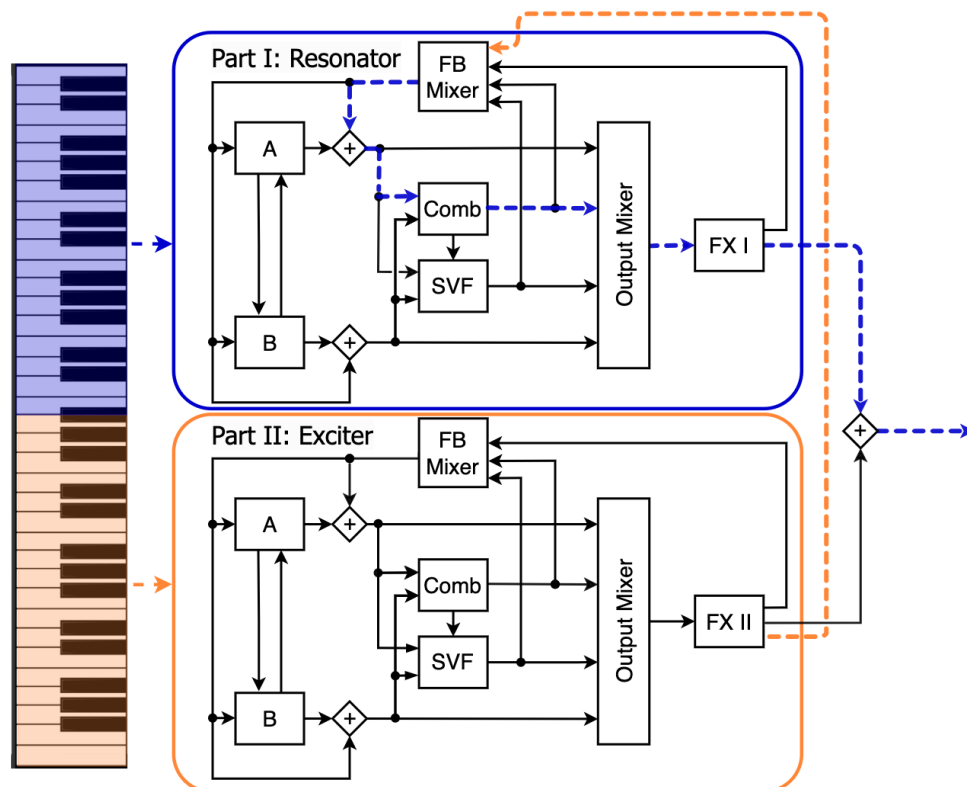


Figure 1: The Split Resonator configuration. A and B are the oscillators and shapers, Comb and SVF are the Comb Filter and the State Variable Filter. The Exciter signal is routed to the Effects group (FX II) and picked up from Part II via the Feedback mixer (FB Mixer). After that, it reaches the Comb Filter and the output of Part I.

The resonant frequencies are determined independently by pressing specific keys in Part I, as the Comb Filter in the resonator part is tuned according to the keys pressed, independently from the tonal or atonal nature of the Exciter.

Holding down keys with the left hand and triggering exciter signals with the right hand can be compared to playing a string instrument, where the left hand sets the pitch for the resonators – the strings – and the right hand plucks them.

The Macro Controls enable significant sound variations in this bank and unlock its full potential:

- On Macro Control F an Exciter Mix it is always present and mapped to Ribbon 4 as well. It provides control on the amount of Exciter signal sent to the output.
- Macro Control A and Macro Control B are useful for in-depth manipulation of the sound during play and are mapped to Ribbon 1, 2; Pedal 1,2.
- Pedal 4 is reserved either to Global Sustain, or to to increase the amount of resonances.

See the Preset Info using the Info Button on the C15 for further information on the specifics of each preset.

A detailed tutorial about how to set-up a Split Resonator configuration on the C15 is available here at this link: [C15 Tutorial: Creating Resonator Sounds in Split Mode](#)