

# Bastl Instruments – Cinnamon VCF

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- [Manual PDF](#)

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[Full Manual \(PDF\) - Bastl Cinnamon State Variable Filter](#)

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## Bastl Cinnamon – Quick Reference Cheat Sheet

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A **unique-sounding, multi-flavored state-variable filter** module, especially notable for its Drive and Character switches, allowing wild sonic shaping and self-oscillation.

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### Front Panel Controls

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#### Knobs:

Knob Name	Function	Voltage/ CV Range	Notes
Cutoff	Sets filter cutoff freq (base freq + CVs).	—	Range determined by CV and pot combined.
Resonance	Emphasizes cutoff frequency; self-oscillates fully CW.	—	At max, filter will oscillate (sine/alt shapes).

Knob Name	Function	Voltage/ CV Range	Notes
Input Level	Sets audio gain (0–2 or 0–10 w/Drive switch).	—	Saturates input at high—affected by Drive switch.
FM (Attenuator)	Controls CV amount from Right CV input.	—	Full CCW = no CV modulation.

## Switches:

Switch Name	Function
Drive	Up = overdrive input (gain 0–10), Down = normal (gain 0–2).
Char 1	Alters resonance/oscillation response (see "Character").
Char 2	Alters resonance/oscillation response (see "Character").

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## Jacks (Inputs/Outputs):

Jack	Type	Function	Voltage Range
Input	Audio In	Signal to filter	Audio levels; gain 0–10
V/OCT	CV In	1V/Oct FM of cutoff (tracking)	-5V to +5V typical CV
FM (Right)	CV In	Additional FM, amount by atten.	-5V to +5V typical CV

Jack	Type	Function	Voltage Range
Lowpass	Audio Out	12 dB/oct (2-pole) LP out	Eurorack audio (~±5V)
Bandpass	Audio Out	6 dB/oct (1-pole) BP out	Eurorack audio (~±5V)
Highpass	Audio Out	12 dB/oct (2-pole) HP out	Eurorack audio (~±5V)

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## Special Functions:

- **Character Switches:**

*Down+Down*: clean sine resonance

*Up*: sharper, edgier resonance waveform

*Down*: sawtooth-like resonance waveform

(Switches can disrupt V/Oct tracking/osc shape)

- **Self-Oscillation:**

Max resonance → acts as sine/altered wave VCO.

(LP = 0°, BP = 90°, HP = 180° phase offset)

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## Patch Examples:

- Routing audio in to Input, take filtered signal from any out (LP, BP, HP).
- Use V/OCT for precision tonal FM (tracking best when Char switches *both OFF*).
- Overdrive/filter for extra harmonics with Drive ON and Input Level up.
- Modulate cutoff with FM input and attenuator for funky sweeps.
- With high resonance, use as a sine/saw/edgy waveform VCO.

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## Power Requirements:

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- Width: **5HP**
- Depth: **35mm**
- +12V: <30mA, -12V: <30mA
- PTC fuse and diode protected.

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## Reference Links

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- [Bastl Cinnamon Official Page & Video Tutorials](#)
- [Generated With Eurorack Processor](#)