



# BANDIT

## USER MANUAL

**BIFACO**

## POWERING THE MODULE | THANKS FOR PURCHASING A MODULE FROM BEFACO! MODULE BEFORE YOU PLUG THIS MODULE IN...

1. Disconnect your cabinet from the mains.
2. Triple check the power cord polarity. The coloured line on the cable (pin number one) is the -12V rail.
3. If you plug the module backwards you might burn it out and unfortunately this is not covered by the warranty.
4. If you have any questions about this product feel free to contact us [support@befaco.org](mailto:support@befaco.org)



## INTRODUCTION | WHAT IS BANDIT?

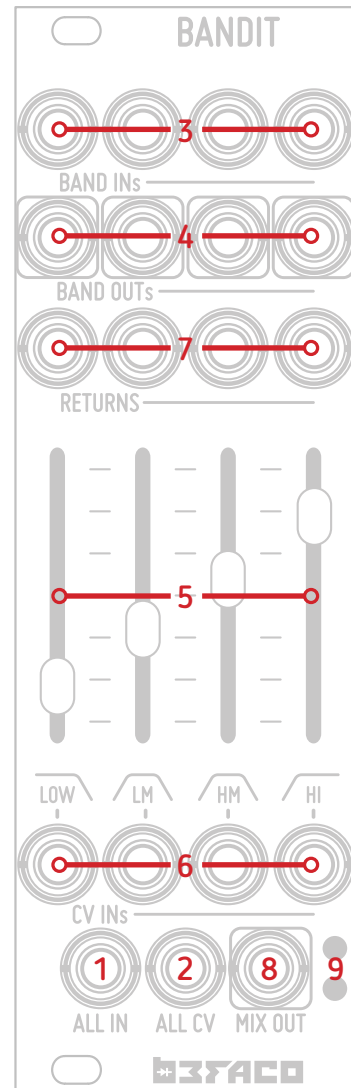
**Bandit** is a fun combination of band-pass filters, VCAs, and routing options.

It serves multiple functions including equalizer, crossover, multiband VCA, 4 band spectral mixer, and spectral external FX insert point.

It allows you to:

- Cut or emphasize different frequency bands of a signal, acting as a voltage-controlled equalizer/isolator.
- Split a sound into four different frequency bands for external processing, and if needed, insert them back.
- Mix four different signals with predefined tone placement in the mix.
- Create four different sounds from one sound source by modulating the volume with four different envelopes.
- Create evolving timbres by modulating one or more frequency bands using LFOs or audio-rate modulation.

1. **ALL AUDIO IN:** This input is a general audio input. It is normalled to all the individual band audio inputs, so any signal applied here will be routed to all of them, while each individual band audio input remains unconnected.
2. **ALL CV IN:** This is the general Control Voltage input. The CV signal applied here will be summed with the channel's CV input.
3. **BAND AUDIO INPUTS:** These are separate audio inputs for each band. Signals applied to these inputs will pass through the channel filters, which consist of Low-Pass, Mid High Band-Pass, Mid Low Band-Pass, and High-Pass filters. The Low-Pass and High-Pass filters are shelf filters with cutoff frequencies set at 300 Hz and 5 kHz, respectively. The Mid Low Band-Pass and Mid High Band-Pass filters are peak filters, with center frequencies around 700 Hz and 1500 Hz, respectively. After the filter, each channel has a VCA (Voltage Controlled Amplifier) to manage the volume of the band.
4. **INDIVIDUAL BAND AUDIO OUTS:** This sends each band signal for external processing. Plugging a cable into these jacks will break the signal path at this point.
5. **BAND LEVEL FADERS:** These faders control the gain of the VCAs for each band after the filter. The fader is set to unity gain at the center position. When the fader is at the bottom, the channel remains silent. Moving the fader up from the center boosts the signal. Additionally, when a cable is plugged into these faders, they will function as attenuators for the Band Level CV input.
6. **BAND LEVEL CV IN:** This is the voltage control input for adjusting the level of the different bands. Expected CV 0 to 10. 5V is unity gain, 0V makes this band silence and more than 5V boosts the band levels.
7. **RETURNS IN:** Signals applied to these inputs will be summed into the MIX OUT. This mixing occurs post-filters, meaning no EQ is applied to them, and the order of signals is irrelevant, as this is just a four-channel mixer summing to the total mix.
8. **MIX OUT:** The band signals and returns are mixed at this output. A clipping limiter is provided at this point to ensure soft clipping occurs when the sum of signals is too <sup>o</sup> high.
9. **MIX PEAK METER:** It blinks green when a signal is present and red when the main output is clipping. This meter is located after the MIX OUT (post-limiter).





Size: 8HP

Depth: 30 mm

+12v: 80 mA

-12v: 70 mA

Designed with care and love by the Befaco Team in Barcelona 2024.