CORSYNTH

C107 QUAD LINEAR VCA
VC MIXER

USER MANUAL

C107 QUAD LINEAR VCA / VC MIXER

The C107 Quad Linear VCA / VC Mixer is a combination of four voltage controlled amplifiers and four mixers.

This module is really useful either in big modular synthesizers or small / medium size systems. With four VCAs and four independent mixer outputs, the C107 brings you a great routing flexibility in a only two units wide module, saving space and money.

The C107 Quad Linear VCA / VC Mixer is designed to work with audio and control signals and can be used in many different ways , for example :

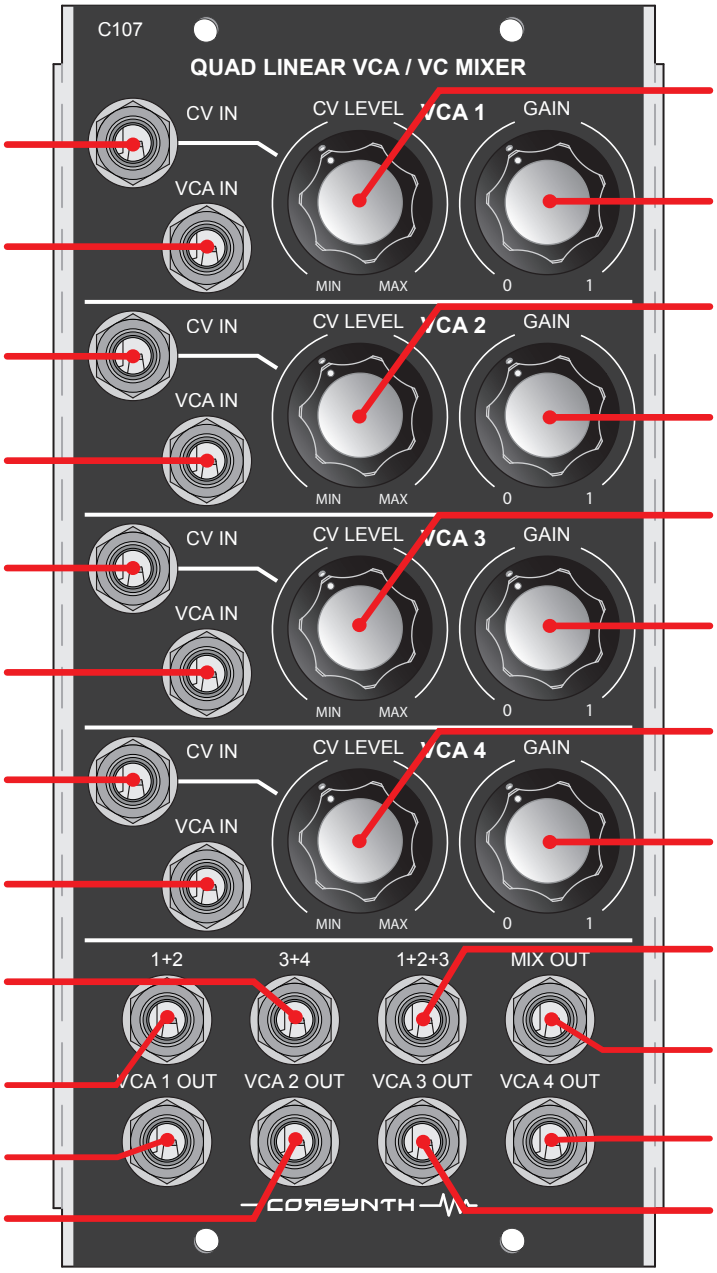
- Four independent VCAs
- A two channel voltage controlled mixer (with independent outputs per channel) and two VCAs.
- A two channel voltage controlled mixer (with independent outputs per channel) with a voltage controlled master channel , and one VCA.
- A three channel voltage controlled mixer (with independent outputs per channel) and one VCAs.
- Two independent two channel voltage controlled mixers (with independent outputs per channel).
- A three channel voltage controlled mixer (with independent outputs per channel) with a voltage controlled master channel.
- A four channel voltage controlled mixer (with independent outputs per channel).

Each VCA features :

- A signal input.
- An initial gain control.
- A voltage control input with a level potentiometer.
- An output.

The VCAs in the module are not only attenuators they can also boost the input signal. Using the initial gain potentiometer and a five volts CV signal, the VCA has a maximum gain of 2 (doubles the signal amplitude). This is very useful for signal processing or to boost external signals.

C107 Quad Linear VCA / VC Mixer
Front Panel



Control voltage input (VCA1)

Signal input (VCA 1)

Control voltage input (VCA 2)

Signal input (VCA 2)

Control voltage input (VCA 3)

Signal input (VCA 3)

Control voltage input (VCA 4)

Signal input (VCA 4)

VCA 3 + VCA 4 mix out

VCA 1 + VCA2 mix out

VCA 1 out

VCA 2 out

Control voltage level (VCA 1)

Initial gain (VCA 1)

Control voltage level (VCA 2)

Initial gain (VCA 2)

Control voltage level (VCA 3)

Initial gain (VCA 3)

Control voltage level (VCA 4)

Initial gain (VCA 4)

VCA1 + VCA 2 + VCA 3 mix out

VCA1+VCA 2+VCA 3+VCA 4 mix out

VCA 4 out

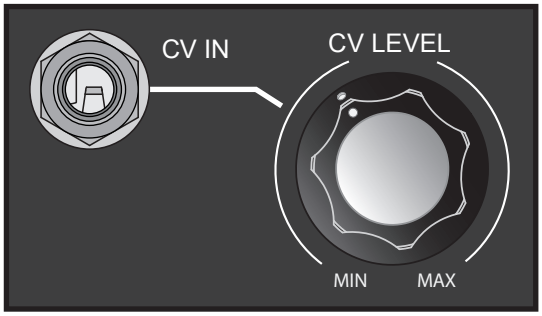
VCA 3 out

CONTROL DESCRIPTION

THESE CONTROLS ARE THE SAME FOR ALL VCAs

GAIN

This potentiometer sets the initial gain of the VCA. If there is not CV signal connected to the VCA :
0 = The VCA is closed and there is no signal at the output.
1 = The output signal has the same level as the input.



CV IN / CV LEVEL

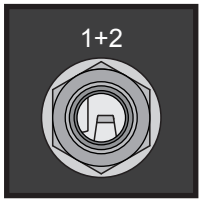
Control voltage input for the VCA gain. The amount of CV signal is set by the CV LEVEL potentiometer. The VCA total gain is the result of adding the amount of CV signal and the initial gain set by the GAIN potentiometer.

Using a 5V CV signal :
- GAIN 0 = VCA gain is 1
- GAIN 1 = VCA gain is 2 (doubles the signal amplitude)

This input accepts positive an negative signals.

VCA IN

VCA signal input. This input can be used with audio and control signals.



1+2

VCA 1 + VCA2 mix output.

3+4
VCA 3 + VCA 4 mix output

1+2+3
VCA1 + VCA 2 + VCA 3 mix output

MIX OUT
VCA1 + VCA 2 + VCA 3 + VCA 4 mix output

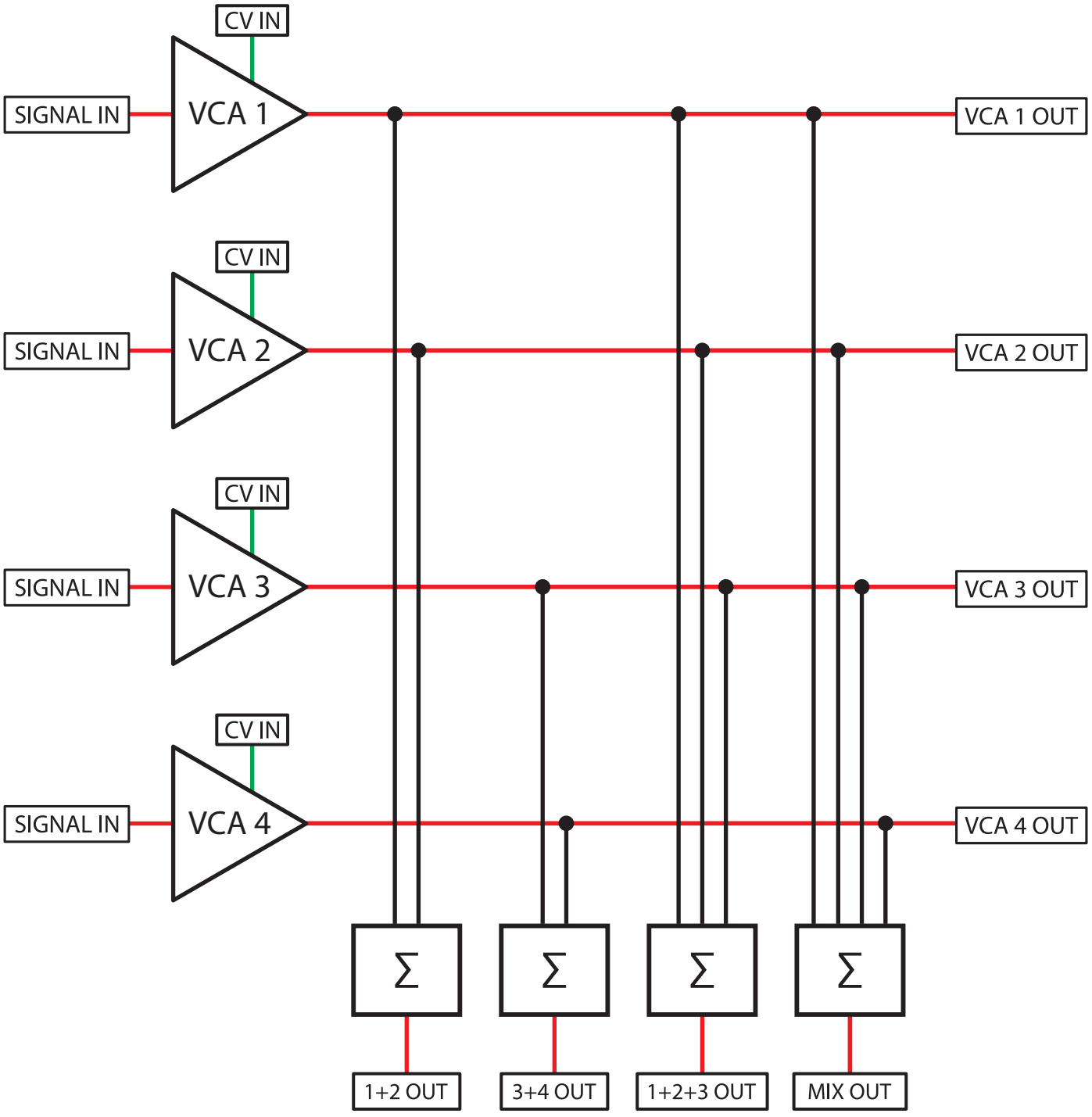
VCA 1 OUT
VCA 1 output.

VCA 2 OUT
VCA 2 output.

VCA 3 OUT
VCA 3 output.

VCA 4 OUT
VCA 4 output.

BLOCK DIAGRAM



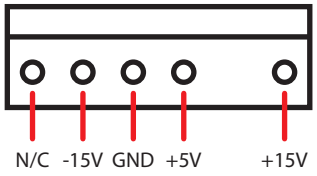
Trimmers and power connectors

IMPORTANT !!!!

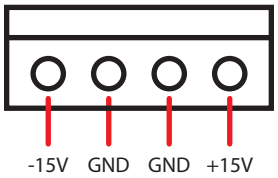
This module has two power connectors (Synthesizers.com and MOTM). Only one is needed to power the module. (Synthesizers.com or MOTM).

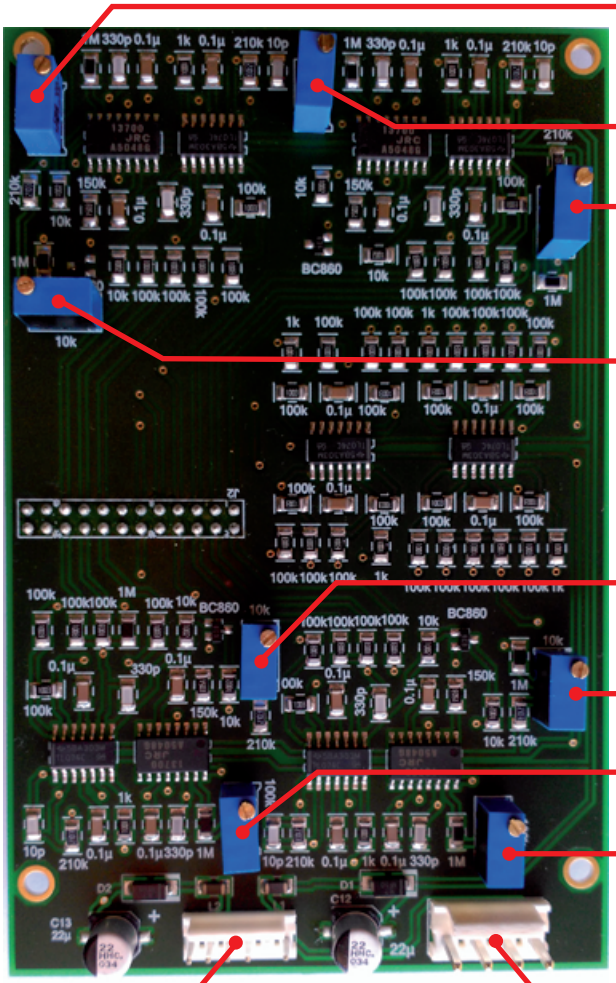
Never connect both at the same time.

Synthesizers.com



MOTM





CV Reject (VCA 2)

CV Reject (VCA 1)

Initial Gain (VCA 1)

Initial Gain (VCA 2)

Initial Gain (VCA 4)

Initial Gain (VCA 3)

CV Reject (VCA 4)

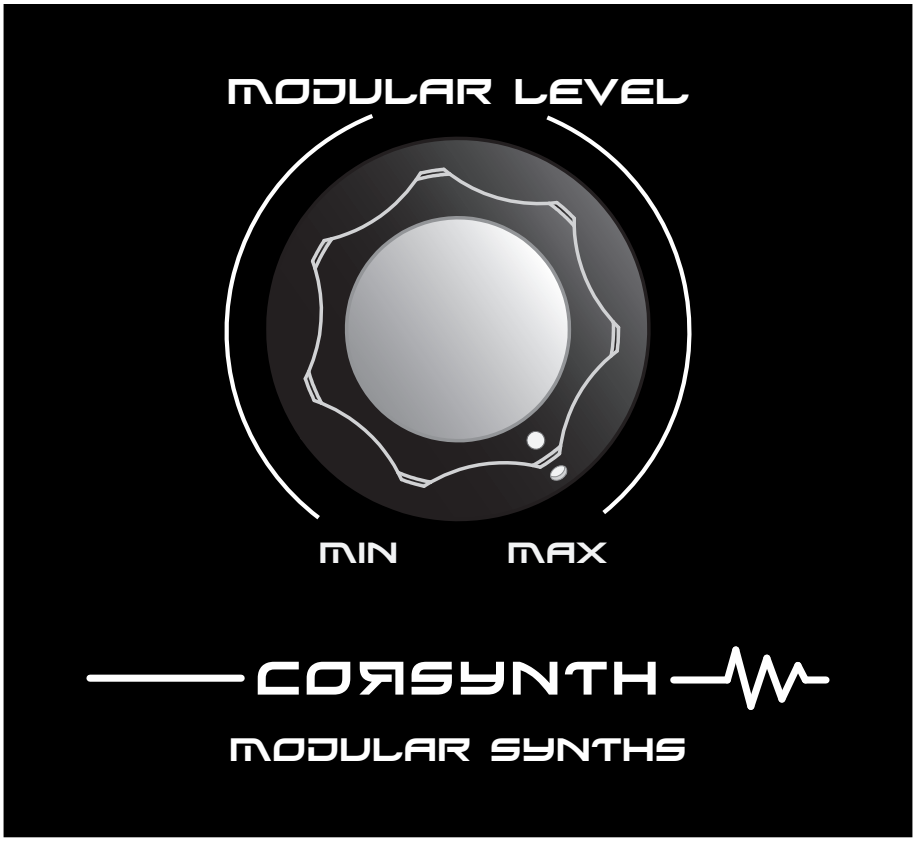
CV Reject (VCA 3)

Synthesizers.com power connector

MOTM power connector

TECHNICAL DATA

Module Format : 5U, MU format (Synthesizers.com, Moog)
Module Width : 2 MU (Moog unit)
Module Depth : 52 mm (2,05 inches)
Power : +15V@51mA , -15V@53mA
Power connectors : Synthesizers.com , MOTM (4 pin)
VCA maximum gain : without using CV maximum gain 1 , using CV maximum gain 2


MODULAR LEVEL
MIN
MAX
CORSYNTH
MODULAR SYNTHS