Majella

MCVC

USER MANUAL

Version 1.0

INTRODUCTION

THE MCVC (Midi to CV Converter)

The MCVC is a four-channel MIDI (Musical Instrument Digital Interface) to Control Voltage (CV) converter. The MCVC is a straightforward interface between the Eurorack synthesizer system and devices that communicate using the MIDI - protocol. The MIDI CV Converter bridges the gap between MIDI and Eurorack systems, by converting MIDI messages to control voltages, corresponding to eurorack signal standards.

CONTENTS

The MCVC comes in a box and is fully assembled and tested. Included are a 16-pin IDC power cable and M3 mounting screws + rack crash protection washers.

SUPPORT

If you have any further questions or queries please contact:

support@majella-audio.com

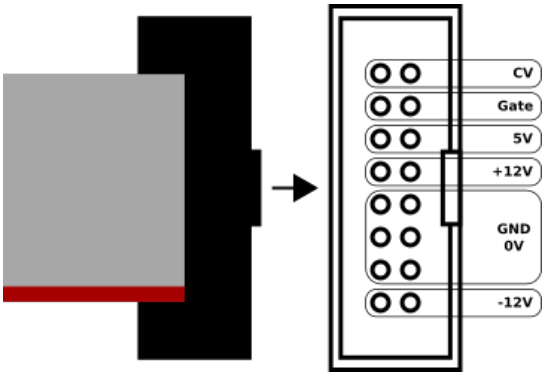
SPECIFICATIONS

Below are the specifications of the MCVC.

- Dimensions 128,5 x 70,8 (14 HP) x 15mm
- Doepfer A-100 compatible
- 16pin Power (Using 5V rail!)
- Current usage: +12V 39mA, -12V .25mA, 5V 30mA.

POWER CONNECTION

This Module is designed to be connected to a Eurorack system power supply using a 16 pin ribbon cable. The -12V (red lead) should be directed as shown in the picture below.



WARNING!

The MCVC is designed for Eurorack systems. The supply should be +-12V and connected signals should not be outside of the +-12V range! Do not reverse polarity when connecting the power, this will damage your module permanently!

Please treat your Majella Audio products with care. Majella Audio does not offer warranty for any damages to the MCVC due to irresponsible behaviour (fluid spills, scratches, wrong input/output connections etc.)

OVERVIEW

1. MIDI INPUT

This is a 5 pin DIN MIDI input connector, which makes it possible to connect MIDI devices to the MCVC.

2. MONO POLY SWITCH

The Mono/Poly switch lets you choose how the MCVC processes the incoming MIDI Data. In MONO mode each channel is controlled by the corresponding MIDI channel number. E.g. MIDI Channel 1 controls voice 1, MIDI channel 2 controls voice 2 et. In POLY mode the MCVC listens to MIDI channel 1 and uses the next successive voice available. E.g. if voice 1 and 2 are occupied it twill use channel 3 for the next note to play.

3. MIDI BEAT CLOCK

This is a MIDI BEAT CLOCK output which can be used to synchronise externally clocked gear such as: delays, LFOs, drum computers etc. It outputs 24 pulses per quarter notes.

4 CHANNEL OVERVIEW

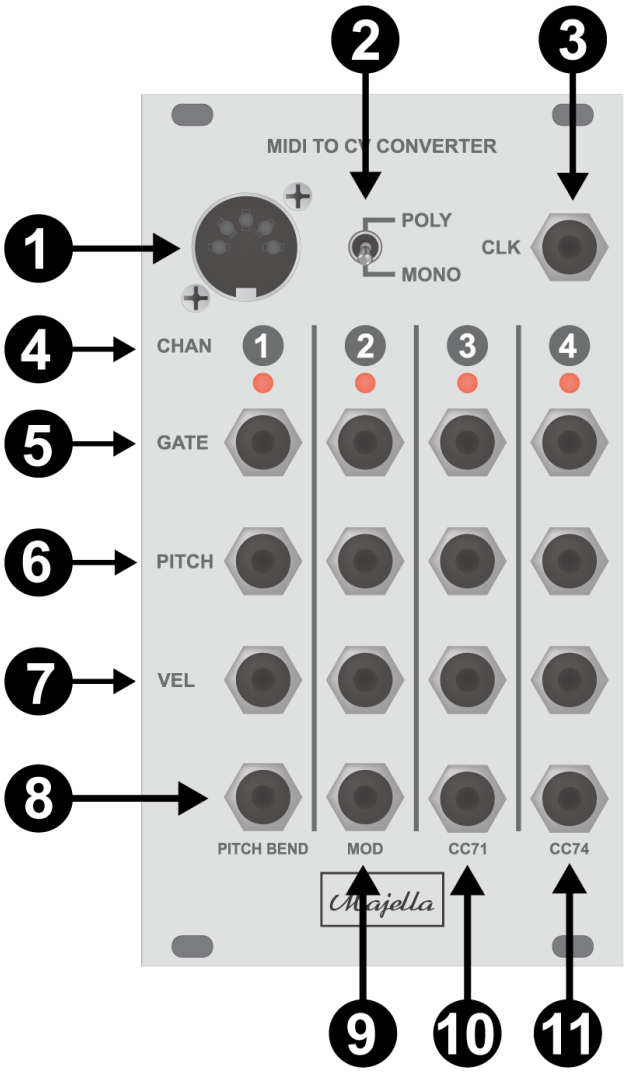
Each number corresponds with the three outputs below (GATE, PITCH and VEL)

5 GATE OUTPUTS

The GATE outputs, output a 5V signal whenever a “note ON” is played on the corresponding channel. The LED blinks red to indicate when a note is played.

6 PITCH OUTPUTS

The pitch outputs output a 1V/Oct signal corresponding to the MIDI note number received at the corresponding channel.



7. VELOCITY OUTPUTS

The Velocity outputs output a 0-5V control voltage corresponding with the Velocity data received, E.g velocity 127 gives a 5V signal. Lower MIDI velocity values output lower control voltages.

8 PITCHBEND OUTPUT

This output converts Pitchbend MIDI messages to a 0-5V CV-signal for modulating/bending the pitch of oscillators. Its initial state is 2.5V and it can bend it 2.5 octaves up or 2.5 octaves down. Of course it can be used for other parameters as well.

9 MODULATION OUTPUT

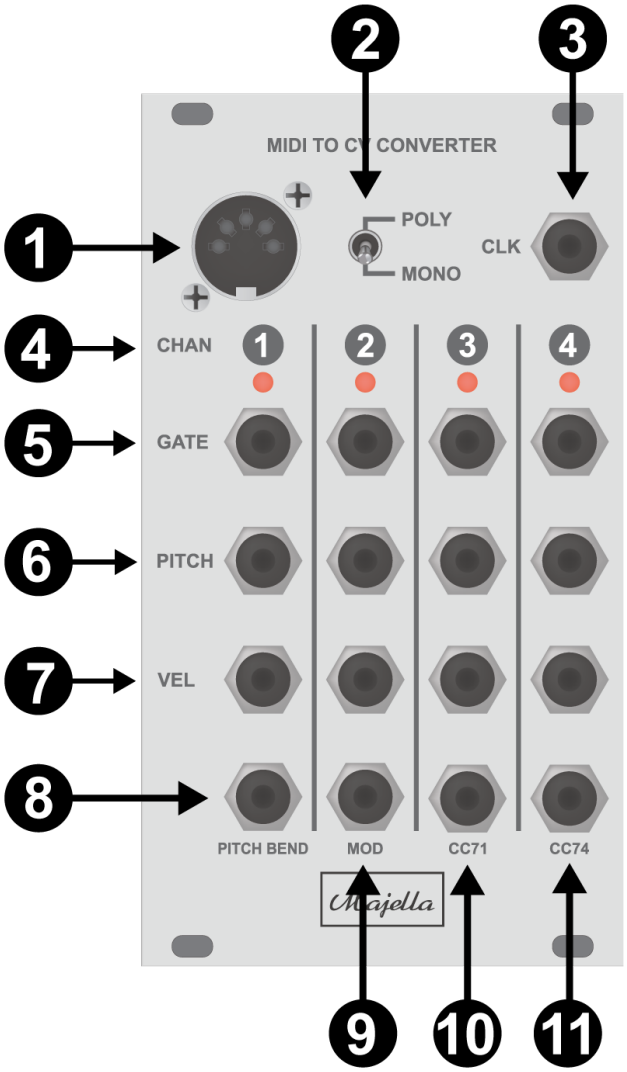
The modulation output, outputs a voltage in the range of 0-5V for CC1 (MOD) control messages.

10 CC71 OUTPUT

CC71 is an extra CV output to control other parameters of the Eurorack setup like VCF resonance etc.

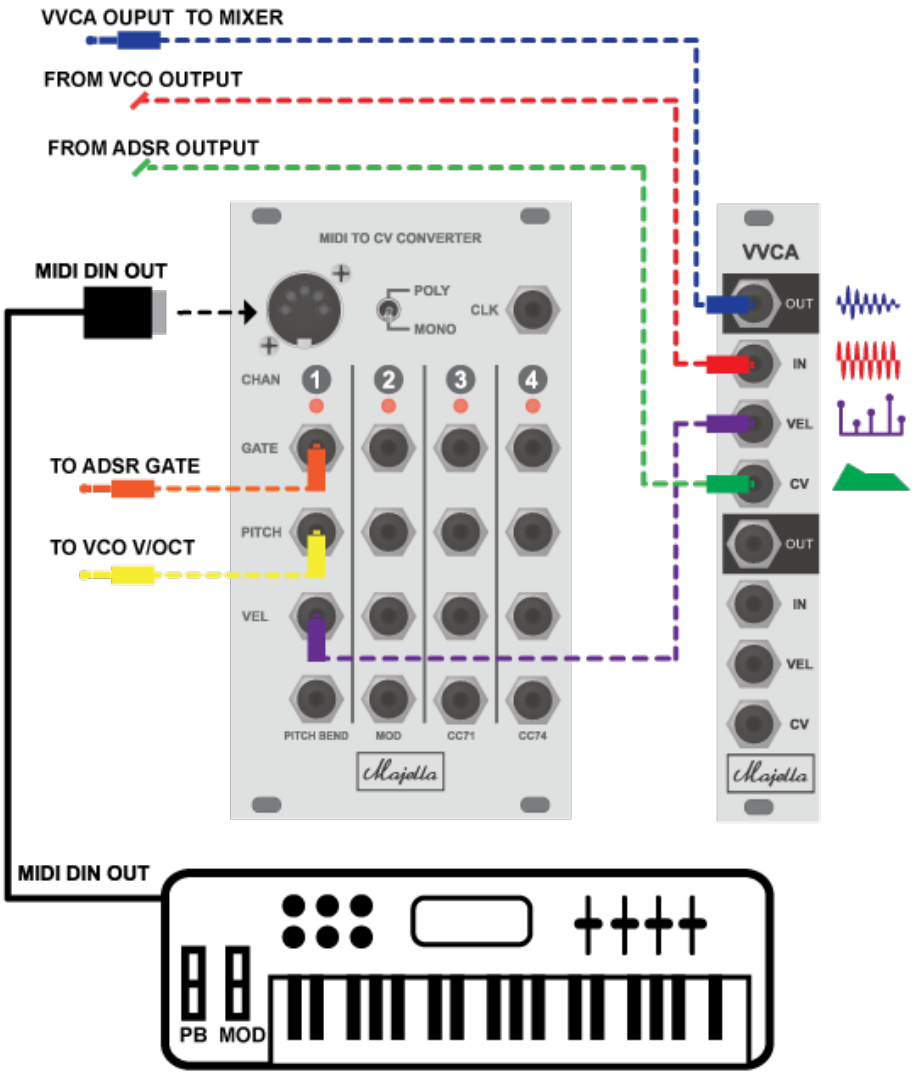
11. CC74 OUTPUT

CC74 is an extra CV output to control other parameters of the Eurorack setup like VCF cut off etc.



EXAMPLE PATCH

The image below demonstrates a simple yet effective patch of the MCVC in combination with an ADSR envelope generator, VCO and the Majella VVCA. The MIDI data from an external MIDI device is fed into the MCVC with a 5 pin DIN cable. The data (pitch, velocity,) received from the controller is converted to a voltage at the corresponding voice or channel output (depending on the selected mode of the MCVC). The pitch output from the MCVC is connected to a VCO's V/OCT input to control the pitch of this oscillator. The Gate output of the MCVC is sent to an ADSR to create an envelope. The velocity output of the MCVC is sent to the Velocity input of the VVCA, but can also be sent to control other parameters e.g. resonance, accents, glide etc. The output of the VCO is sent to the input of the VVCA. The output of the ADSR is sent to the CV input of the VVCA, controlling the overall amplitude of the sound.



Special thanks to:

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Designed and made in the Netherlands