esm

Version 1.0

MIDI2VC H162

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1. Introduction

Thank you for choosing our product. Please read this manual carefully to understand how to set up, operate, and maintain your device for optimal performance and longevity.

2. Safety Information

Warning:

- Read all instructions before use.
- Keep away from water and direct sunlight.
- Do not disassemble or modify the device.
- Keep out of reach of children.

3. Package Contents

Ensure that the following items are included in the package:
1 - MIDI2VC H162 Module
1 - Power Supply I D C 16 pin plug
1 - User Manual
2 – M3x6 Screws

If any parts are missing or damaged, please contact customer support.

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4. Device Overview

Device Description:

The **MIDI2VC H162** module functions as a USB MIDI Host interface, converting signals from USB MIDI device keyboards into pitch and modulation control voltages. The output pitch voltage can be configured to generate a range of **-5V to +5V** or **0V to 10V**, making it ideal for controlling oscillators that operate within either of these voltage ranges.

Modulation control can be assigned to respond to any MIDI control message. Certain control message numbers have been customized to handle specific functions, such as **key velocity**. The pitch bend MIDI message format is selectable between the standard **LSB + MSB** format or **LSB-only** format, accommodating keyboards that transmit pitch wheel messages using only the LSB. For detailed information, refer to the **MIDI Implementation Chart** at the end of this manual.

The module includes **two Gate outputs** suitable for triggering envelope generators or other compatible devices. Additionally, it features a **MIDI Out** port, allowing all received MIDI messages to be routed to any connected MIDI device.

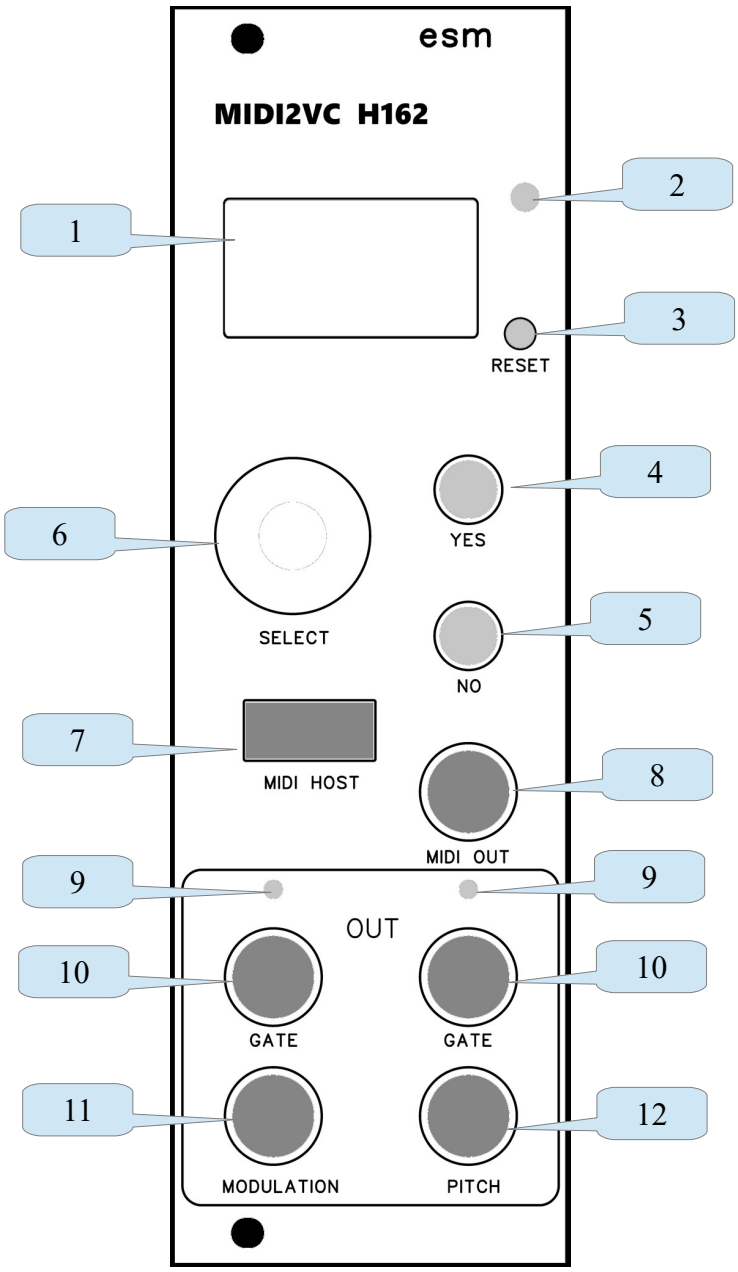
The USB Type A port is not 5V powered.

Front Panel :Fig1

1. **OLED Parameter Display**
   Displays the current **MIDI2VC H162** parameters and settings.
2. **USB Device Status**
   - **Red LED** – No USB device connected or detected.
   - **Green LED** – USB device detected and connected.
3. **Reset Switch**
   Press to **reset and restart** the **MIDI2VC H162**.
4. **Yes [Enter] Switch**
   Press to **store** the selected parameter value and return to the previous OLED display screen.
5. **No [Back] Switch**
   Press to return to the previous OLED display screen. If the parameter value was changed, it will **not** be saved; the previous value will remain active.
6. **Rotary Encoder [Select Switch]**
   - Rotate the knob to **scroll through menu options** and **adjust parameter values**.
   - Press the knob to **select** a menu parameter.
   - In the parameter value screen, rotate the knob to **adjust values**.
7. **USB Type-A Port**
   Used to **connect a USB device** (e.g., MIDI keyboard).
8. **MIDI Out 3.5mm Jack**
   Outputs all received USB MIDI messages in **standard MIDI format**.
9. **Gate LED Indicators**
   LEDs light **green** when a gate signal is transmitted via the gate output jack.
10. **Gate Out 3.5mm Jacks**
    Outputs **+5V gate signals** for triggering envelope generators or other devices.
11. **Modulation Out 3.5mm Jack**
    Outputs modulation signals based on the **selected controller**.

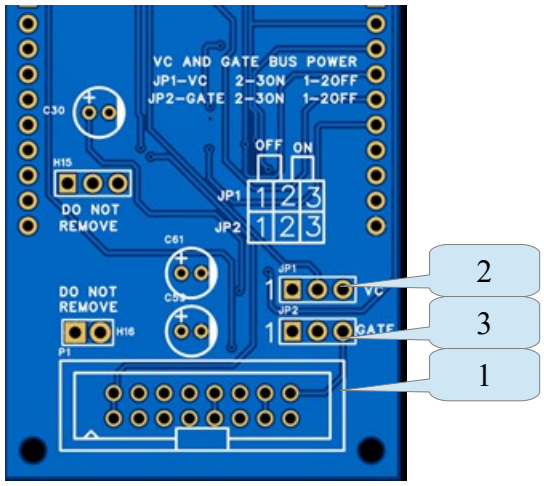
12. **Pitch Out 3.5mm Jack**
    Outputs pitch voltage for **oscillator control**.

Fig 1



Back View:

1. **Power IDC 16 Header**
   Connects to the **Eurorack power bus** for power supply.
2. **JP1 – Bus Voltage Control Enable/Disable**
   Jumper to enable or disable the **pitch voltage** transmission through the power bus.
3. **JP2 – Bus Gate Enable/Disable**
   Jumper to enable or disable the **gate signal** transmission through the power bus.



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5. Setup Instructions

Setup Instructions

Unpacking

- Carefully remove the device from the packaging.
- Check that all included components are present and undamaged.

Connecting Power

- Switch off the **main power supply**.
- Plug the **16-pin IDC power connector** into the module and the power supply bus.
- After confirming that all connections are secure, switch on the **main power supply**.

Initial Configuration

- Once powered on, the **OLED display** will show a **welcome message**.
- All LEDs will flash **three times** to confirm that the device has initialized successfully.

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6. Operating Instructions

Using the Device

- After initialization, the display will show the **settings menu** with the **default factory settings**.

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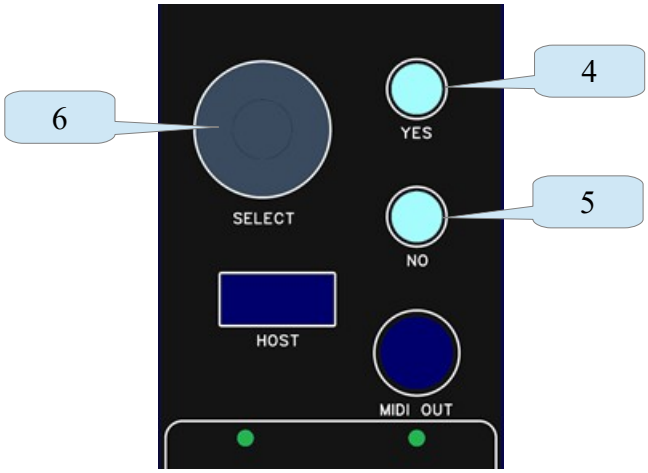
- The selected menu parameter 1 will display with **inverted colours**, and the **USB status LED** 2 will light **red** to indicate that no USB device is connected. Once you connect your USB MIDI keyboard to the device's **USB Type-A port**, the LED will turn **green** to confirm a successful connection.



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- Use the **Select knob** 6 to **scroll up and down** through the menu parameters. The currently selectable parameter will display with **inverted text colour.** Pressing the **Select knob** will switch to **editing mode** for the selected parameter, displaying its available settings and the **Yes** and **No** switches will flash on and off .
- Use the **Select knob** to adjust the parameter values. Press 4 **Yes** to confirm and save the new value and return to the previous menu screen. Press 5 **No** to exit without saving and return to the previous screen. All modified parameters will be stored in memory, ensuring that the updated values are retained even after the device is powered off, and restored on the next startup.

Parameters

VC RANGE

Changing this parameter will set the **pitch output voltage range**. Use the **-5V to +5V** range for oscillators with modulation input voltages within this range. Select the **0V to 10V** range for oscillators with modulation input voltages within that range.

MIDI CHANNEL

This parameter selects the **MIDI channel** for receiving messages. It must match the MIDI channel of the connected device to ensure proper communication.

PITCH BEND RANGE

Set the pitch bend range in semitones. The available range is from 2 to 24 semitones.

PITCH BEND MODE

Set the pitch bend MIDI message format to either the standard MIDI pitch wheel format (LSB + MSB) or LSB-only format. The LSB-only option is useful for MIDI keyboard controllers that send pitch wheel messages using just one byte (LSB).

7. Maintenance and Cleaning

- Turn off and unplug the device before cleaning.
- Use a soft, dry cloth to clean the surface.
- Do not use abrasive cleaners or solvents.

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8. Troubleshooting

The **MIDI2VC H162** was designed to recognize and communicate with devices using the USB MIDI protocol. If you encounter issues with connectivity or functionality, please follow these steps to troubleshoot:

Problem	Possible Cause	Solution
Device won't turn on	Power not connected	Check and connect the power cord
USB Status Led Red	1-No Device connected 2-USB device not recognized	1-Connect an USB MIDI class compliant device 2-Change USB cable. Connect your USB MIDI device to an computer and check if is recognized as USB MIDI class compliant .

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9. Technical Specifications

Specification	Details
Model	[Model Number]
Power Supply	+12 V DC
Dimensions	Eurorack 8HP
Gate Out	+5 Volts
Modulation Out	0Volts to +5Volts

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10. Warranty and Support

Visit our website www.eurosoundmodules.com/

Midi implementation chart

The recognized midi controllers can be selected for Modulation

The controllers in **BOLD** are modified for modulation

Function	Transmitted	Recognized	Remarks
Basic Channel	No	1–16	Selectable via menu
Mode	No	Mode 1, Mode 3	Omni Off, Poly
Note Number	No	0–127	-5V=Note 0+5V=Note 127 OR 0V = Note 0, 10V = Note 127 Selectable in Menu
Controller 1 – Velocity	No	Yes	Key velocity Modulation Out
Controller 2 – Modulation Wheel	No	Yes	–
Controller 3 – Breath Controller	No	Yes	–
Controller 4 – Pitch Wheel LSB	No	Yes	Handles Pitch Wheel LSB data for controllers using LSB-only format
Controller 5 – Foot Controller	No	Yes	–
Controller 6 – Portamento Time	No	Yes	–
Controller 7 – Data Entry	No	Yes	–
Controller 8 – Channel Volume	No	Yes	–
Controller 9 – Balance	No	Yes	–
Controller 10 – Pitch Wheel LSB + MSB	No	Yes	Handles Pitch Wheel LSB + MSB format for full-resolution pitch bend
Controller 11 – Pan	No	Yes	–
Controller 12 – Expression	No	Yes	–
Controller 13 – Effect Control 1	No	Yes	–
Controller 14 – Effect Control 2	No	Yes	–
Controller 15 – Key Velocity	No	Yes	–
Controller 16 – Undefined	No	Yes	–
Controller 17 – General	No	Yes	–

Function	Transmitted	Recognized	Remarks
Purpose Controller 1			
Controller 18 – General Purpose Controller 2	No	Yes	–
Controller 19 – General Purpose Controller 3	No	Yes	–
Controller 20 – General Purpose Controller 4	No	Yes	–
Controller 21 – Channel Pressure	No	Yes	–
Controller 22–31 – Undefined	No	Yes	–
Controller 32–63 – LSB for Controllers 0–31	No	Yes	–
Controller 64 – Sustain Pedal (Hold 1)	No	Yes	–
Controller 65 – Portamento On/Off	No	Yes	–
Controller 66 – Sostenuto	No	Yes	–
Controller 67 – Soft Pedal	No	Yes	–
Controller 68 – Legato Foot switch	No	Yes	–
Controller 69 – Hold 2	No	Yes	–
Controller 70–74 – Sound Controllers	No	Yes	–
Controller 75–79 – Sound Controllers	No	Yes	–
Controller 80–83 – General Purpose Controllers	No	Yes	–
Controller 84 – Portamento Control	No	Yes	–
Controller 85–90 – Undefined	No	Yes	–
Controller 91 – External Effects Depth	No	Yes	–
Controller 92 – Tremolo Depth	No	Yes	–
Controller 93 – Chorus Depth	No	Yes	–
Controller 94 – Celeste Depth	No	Yes	–
Controller 95 – Phaser Depth	No	Yes	–
Controller 96 – Data Increment	No	Yes	–
Controller 97 – Data Decrement	No	Yes	–
Controller 98 – NRPN (LSB)	No	Yes	–
Controller 99 – NRPN (MSB)	No	Yes	–
Controller 100 – RPN (LSB)	No	Yes	–
Controller 101 – RPN (MSB)	No	Yes	–

Function	Transmitted	Recognized	Remarks
Controller 102–119 – Undefined	No	Yes	–
Controller 120 – All Sound Off	No	No	–
Controller 121 – Reset All Controllers	No	No	–
Controller 122 – Local Control On/Off	No	No	–
Controller 123 – All Notes Off	No	No	–
Controller 124 – Omni Off	No	No	–
Controller 125 – Omni On	No	No	–
Controller 126 – Mono Mode	No	No	–
Controller 127 – Poly Mode	No	No	–
Program Change	No	No	–
Channel Pressure	No	No	–
System Exclusive (SysEx)	No	No	–
System Common	–	–	–
Song Position	No	No	–
Song Select	No	No	–
System Real-Time	–	–	–
Timing Clock	No	No	–
Start/Stop/Continue	No	No	–

Troubleshoot