



# FeinTech VAX04101 HDMI eARC Pass Switch 4x1 Instruction Manual

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## VAX04101 HDMI eARC Pass Switch 4x1



Instruction manual and technical information

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## VAX04101 HDMI eARC Pass Switch 4x1

Dear customer,

Thank you for purchasing this high quality product. Please read these instructions before installation to ensure optimum use and safety. Please keep this manual for future reference.

### Functions:

- HDMI switch for the operation of up to 4 HDMI sources on one HDMI sink (TV / projector)
- One HDMI input supports eARC (enhanced Audio Return Channel) and can be connected to the HDMI-eARC connector of a soundbar
- Audio EDID management
- Supports Ultra-HD up to 4K 60Hz as well as HDR10, HLG-HDR and Dolby Vision

### Hint:

When changing the settings on the TV or Audio-EDID on the switch, please note that it may be necessary to restart the connected devices. If you do not obtain the desired output or display, please proceed as follows:

- Switch on the desired Audio EDID mode on the switch and select the desired HDMI source.
- Disconnect all devices from the power supply for a few seconds, i.e. pull the power plug.
- Then plug in the power plugs and switch on the devices in the following order: TV, sound system, HDMI switch, HDMI source

## Audio formats

The supported audio formats are negotiated between the devices. You can influence this using the EDID control (EDID = Extended Display Identification Data, this data identifies an HDMI sink to the HDMI source).

### 7.1

If set to 7.1 this allows the HDMI source to recognize that all audio formats are accepted. Please note that your sound system should support eARC to process all audio formats including Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, Dolby MAT and PCM7.1. If your sound system or TV is muted, they do not support the respective sound format.

### 5.1

If set to 5.1 the HDMI source is informed about the support of formats up to 5.1. These include Dolby Digital (AC3), DTS, PCM5.1 and PCM stereo. (If your sound system or TV remains mute, they do not support the respective

sound format.)

## 2.0

If set to 2.0 the HDMI source will detect that only stereo is supported. Sound system and TV should therefore have sound in any case.

## Auto

If set to Auto the switch does not interfere with the management of the sound format. Audio is automatically negotiated between source and TV.

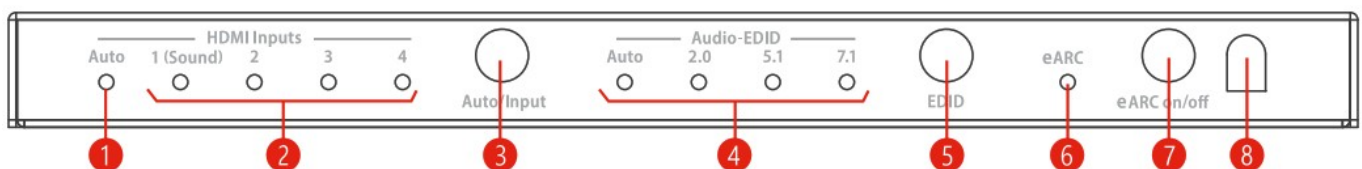
**Note:** For some HDMI sources, you can manually adjust the audio output to override EDID negotiation. eARC is fully backward compatible to previous ARC protocol and supports further audio formats like Dolby TrueHD and Dolby MAT. Therefore you can connect both ARC and eARC devices. But your sound system requires eARC to receive advanced audio formats like Dolby TrueHD or Dolby MAT (Atmos from Apple TV).

## Installation and Operation

- Connect 1 to 4 HDMI signal sources (e.g. Blu-ray player) to the HDMI inputs. Input 1 ARC to Sound is designed for connecting a soundbar with HDMI-eARC.
- Connect an HDMI sink (e.g. TV or video projector) to the HDMI output
- Connect the power adapter to the HDMI switch and plug it into an electrical outlet. Then turn on the TV / video projector, then the switch and an HDMI source.
- If a soundbar is connected, please active eARC by pressing the corresponding button

**Caution:** When plugging and unplugging the HDMI cables, take care not to dirty or damage the plug contacts. Make connections without power and only switch on the devices after connecting them. Please also make sure that the HDMI cables are of good quality – especially for 4k transmission. Good cables usually have a large diameter. We recommend a maximum cable length of 5 m at the inputs and 3 m at the outputs for 4k HDR. For a longer cable run you can use a hybrid Fiber HDMI cable. Please make sure that HDMI-CEC and HDMI-eARC are supported by such cables!

## Connections & Controls



1. LED lights up when automatic switching of the HDMI inputs is active\*
2. LED of the selected HDMI input 1–4 is on
3. Short tap switches between the HDMI inputs, long tap activates Auto-Switching. If active, the device switches automatically to the last connected HDMI source. If you have connected a soundbar and a television with HDMI-ARC, and eARC is switched on, you will hear the sound of the television when input 1 is selected.
4. LED of the selected audio EDID lights up, in Auto mode the EDID information of the connected HDMI sink (TV) is used
5. Switches between the audio EDID modes Auto/2.0/5.1/7.1
6. LED lights up when eARC is activated – must be active if a soundbar is connected.
7. eARC switch – if eARC is on, sound is output from the HDMI ARC to Sound 1 connector.
8. Remote control infrared receiver window Instruction manual and technical information

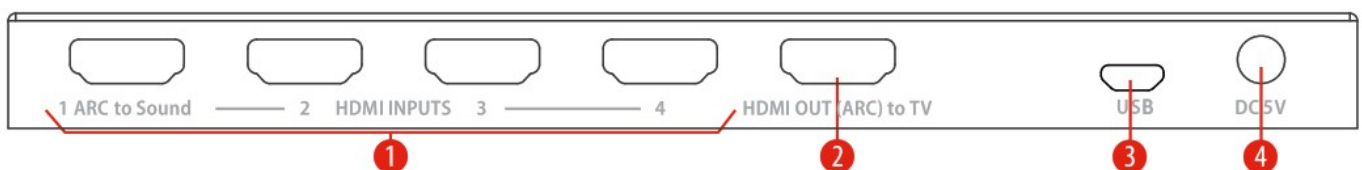
## Remote control



The supplied infrared remote control controls the same functions as the buttons on the front panel:

- With the red ARC key you can switch the eARC mode on or off
- Select between the audio EDID formats by pressing Auto / 2.0ch / 5.1ch / 7.1ch
- Select the HDMI source using the buttons In1 to In4.
- Press Auto Source to switch automatic switching of the HDMI inputs on or off.\*

\*Please note that many media players such as Apple TV or Fire TV do not support automatic switching because the signal outputs are not switched off in standby. Switching via HDMI CEC command is not possible because there is no connection to non-active HDMI sources.



1. HDMI inputs 1 to 4, please use ARC to Sound 1 for the connection of a soundbar
2. HDMI output for the connection of a TV or video projector – HDMI-ARC is supported
3. Micro-USB connector for service
4. Connector for the DC plug of the mains adaptor

## Scenarios

### 1. Playback from HDMI source, sound via sound bar in 5.1 or 7.1 format

Switch on eARC and select the sound format 5.1 or 7.1 (Dolby Atmos) at the switch. Then select the desired HDMI source at input 2, 3 or 4. Note: Parallel sound output via the television is also possible.

### 2. Playback of the TV sound (Sat/CATV or Apps) via the soundbar

Switch on eARC at the switch and select input 1 (ARC to Sound). Activate HDMI-ARC on the TV if not already done. Please make sure that the TV is connected with its HDMI- ARC port to the switch and the HDMI cable supports ARC.

### 3. Use as a normal HDMI switch

Switch off eARC. Then select the desired HDMI source 1 to 4. If there are other sources connected to your sound bar via HDMI, they can be played. If available, you can access the sound bar menu this way.

## Safety

- Please do not cover the housing or power supply, or install the device to avoid overheating.
- Keep away from fire, heat sources, water and moisture.
- Do not place heavy objects on the device or the connection cables.
- Do not open or drill holes in the housing.
- Use only the supplied power adaptor or ensure identical performance data when replacing.
- Use only a soft, dry cloth to clean the surface of the unit. Please do not use aggressive cleaning agents, gasoline or the like.
- If the unit will not be used for a longer period of time, please unplug it from the mains.

## Service

The device must be inspected by qualified personnel in the following cases.

- Objects or liquids have penetrated into the device.
- The unit does not operate normally or its performance has changed.
- The device has been dropped or the housing is damaged.

Disconnect the mains plug and do not continue to operate the device. Do not attempt to repair or open the unit yourself. Contact a trained technician or contact the seller or FeinTech Service

## Disposal of the device after use



Old appliances are not worthless waste, but contain valuable raw materials. At the end of its life, this product should not be disposed of with normal household waste, but should be taken to a collection point for the recycling of electrical and electronic equipment. Contact your local authority for information about recycling points.

## CE Declaration of Conformity

This product complies with EU directives and may only be used in conjunction with shielded cables. We, Spreewald Kommunikationstechnik GmbH, hereby declare that this device complies with the Low Voltage Directive 2014/35/EU, the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU and the Commission Regulation (EU) 2019/1782. You can obtain the formal declaration of conformity at <https://feintech.eu/ce> or on request.

## Information according to the COMMISSION REGULATION (EU) 2019/1782

Spreewald Kommunikationstechnik GmbH  
Country court Cottbus HR B 1107  
Radensdorfer Hauptstr. 45 a, 15907 Lübben (Spreewald), Germany

<b>Power supply model identifier</b>	<b>NBS05B050100VE</b>
Input voltage	100–240 V
Input AC frequency	50/60 Hz
Output voltage	5 V DC
Output current	1.0 A
Output power	5.0 W
Average active efficiency	74.25%
No-load power consumption	0.06 W

## Frequently asked questions and answers

How do I connect a soundbar for Dolby Atmos that has only one HDMI-eARC connection?

- Connect the HDMI connection of the soundbar to HDMI input 1 of the VAX04101. Connect the TV output of the VAX04101 to your T V, monitor or video projector. Switch on eARC on the VAX04101 and select EDID 7.1. You usually do not have to change these settings.

I want to hear the sound from Smart T V apps or cable/satellite T V through the soundbar. What do I need to set?

- Switch on the audio output on the TV via eARC or ARC. Select input 1 on the VAX04101. eARC must be switched on on the VAX04101.

My video projector does not have a connection with HDMI-ARC. How do I connect it?

- An ARC or eARC connection is not necessary. Connect the video projector to the TV output of the VAX04101.

My soundbar or its app gives an error message that no TV with HDMI-ARC is connected, e.g. Sonos S2 “connection error”. What can I do?

- The Soundbar is connected to the VAX04101 and therefore a T V is neither necessary nor recognisable. Please ignore this message. You can still set up your system by wiring the devices. Please exit a dialogue-based installation.

I want to control everything automatically with the T V remote control. How can I do this?

- Media players such as Apple TV or Fire TV can only be controlled or operated automatically if there is an active connection between the TV and the media player. The VAX04101 must therefore be switched to the connection from the Apple TV (with the VAX04101 remote control or on the HDMI switch). If the VAX04101 is switched to another input, it is no longer possible to control the Apple TV. Automatic switching to the HDMI input works with HDMI sources that are inactive or completely switched off in standby. Automatic device control via the VAX04101 is therefore somewhat limited compared to a direct HDMI connection to the TV when several HDMI sources are used.

When do I have to switch of f eARC on the VAX04101?

- You only need to switch of f eARC if you are operating a soundbar with several HDMI inputs and another HDMI source is to be played there.

## **Firmware-Update**

Update only after consultation with FeinTech. Due to chip shortages, the VAX04101 was produced with different hardware and there is no universal firmware for all hardware variants.

### **Software-Files:**

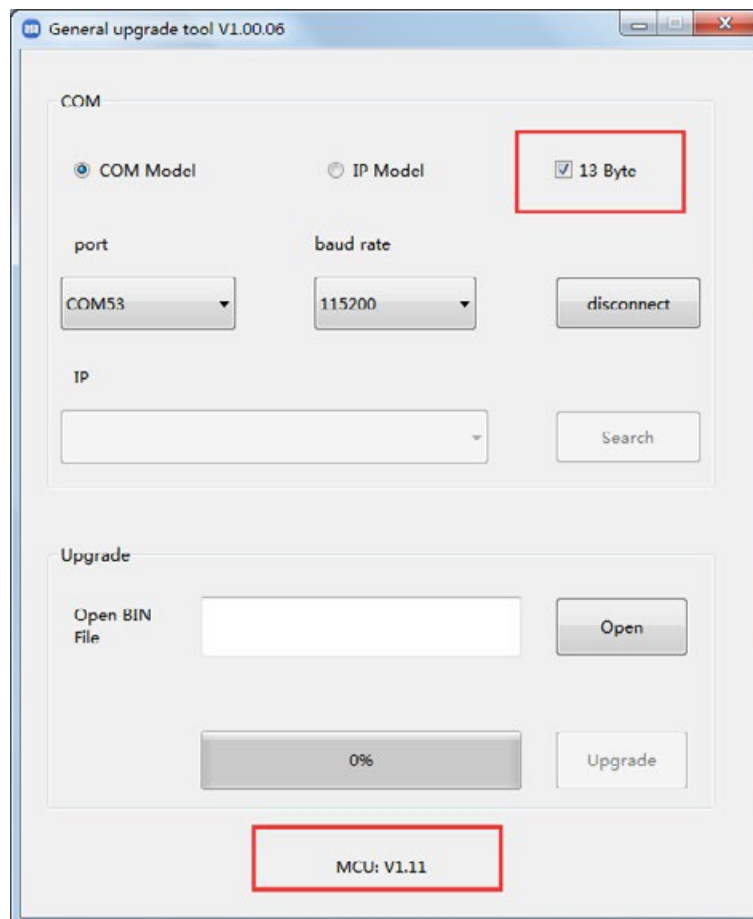
- Windows PC App „GENERAL\_UPGRADE\_Vxx.xx.xx.exe“
- Firmware „MCU\_MAIN\_VAX04101\_xxxxx.bin“
- USB Serial driver CH340 from Windows Update (if not already installed)

### **Hardware:**

- Windows-PC, USB micro Data cable, VAX04101

### **Instructions**

- Power on the VAX04101, then connect it to the PC with a Micro USB cable (Data cable required, not only a cable for charging only)
- Run PC App „GENERAL\_UPGRADE\_Vxx.xx.xx.exe“ and select the correct COM port and baud rate „115200“.
- Select 13 Byte mode and click connect. The current Firmware version is displayed then (MCU: Vx.xx).




- Click Open and select the file with the new firmware. Then click Upgrade. After a few seconds the update is done and 100% plus the success message appears.
- Power off the VAX04101 for a short moment, then replug the mains adaptor. The new firmware version appears on the bottom line.

## Specification



Operation Temperature	-5° C bis +40° C
Operation humidity	10 – 90 % RH (nicht kondensierend)
HDMI compliance	HDMI 2.0b
Signal input	4 × HDMI
Copy protection	HDCP 2.2 & 1.x
Data rate	18 Gbit/s (Maximum)
Data bandwidth	600 MHz
Supported video resolution	max. 4K @60Hz (4096 × 2160p)
Signal outputs	1 × HDMI, 1 × HDMI-eARC
Colour space	RGB, YCbCr 4:4:4, 4:2:2; 4:2:0
Supported colour depth	3 × 8 Bit – 10 Bit – 12 Bit
HDR	HDR10, HDR10+, HLG, Dolby Vision
ARC (Audio Return Channel)	yes
eARC (enhanced Audio Return Channel)	yes
Audio formats HDMI out & HDMI eARC	AC3 (Dolby Digital), Dolby True-HD, Dolby Digital Plus, Dolby Atmos, DTS, DTS-HD, DTS-EX, DTS-X, DSD, LPCM 2.0 – 7.1, Dolby MAT
HDMI-CEC control	yes
Recom. HDMI cable length	4k 60Hz: in < 5 m, out < 3 m
Power consumption	< 2 W
Average energy efficiency	74.25%
ESD protection	Human Body Model: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Size (W×L×H)	183 × 85 × 19 mm
Battery type remote control	CR2025

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[www.feintech.eu](http://www.feintech.eu)

 <p>VAX04101 HDMI eARC Pass Switch 4x1</p> <p>Bedienungsanleitung, Instruction manual, Istruzioni d'installazione Nederlands, Deutsch, Français, Italiano, Español</p>	<p><a href="#">FeinTech VAX04101 HDMI eARC Pass Switch 4x1</a> [pdf] Instruction Manual</p> <p>VAX04101 HDMI eARC Pass Switch 4 1, VAX04101, HDMI eARC Pass Switch 4 1, eARC Pass Switch 4 1, Pass Switch 4 1</p>
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References

- [FT CE Konformitätserklärungen - FeinTech](#)
- [User Manual](#)

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