

FT FeinTech®
VAX04101
HDMI eARC
Pass Switch
4×1



FeinTech VAX04101 HDMI eARC Pass Switch 4×1 Instruction Manual

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FeinTech VAX04101 HDMI eARC Pass Switch 4×1



FAQs

Q: Which EDID mode should I set?

A: For most setups, set the EDID to “7.1” for a surround sound experience. For Homepod mini speakers, set it to “2.0”.

Safety instructions

- 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 the device 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, e.g. via E-Mail to service@feintech.eu

Quickstart

step-by-step installation

a) Installation of video projector and soundbar (e.g. Sonos Arc)

1. Disconnect all devices from the power supply by pulling the plug.
2. Only for Sonos: In the Sonos app on your smartphone, make sure that „TV autoplay“ is switched on under Home Cinema. Then close the Sonos app („TV autoplay“ should be activated by default. If you do not have a Sonos app, skip this step)
3. Connect the VAX04101 TV OUT connection to the HDMI input of the video projector
4. Connect the VAX04101 HDMI 1 to the Sound connection to the HDMI eARC connection of the soundbar.
5. Connect your first player to the VAX04101 input 2.
6. If applicable: Connect your second player to the VAX04101 input 3.
7. If applicable: Connect your third player to the VAX04101 input 4.
8. then plug in the power plug from the video projector and soundbar.
9. Start the video projector and select the connected HDMI input as the signal input.
10. Insert the power plug from the VAX04101. Set the EDID on the VAX04101 to „7.1“ (if your soundbar supports

Dolby Atmos, otherwise set to 5.1). Activate eARC so that the eARC LED lights up.

11. then plug in the mains plugs of the players.
12. Then start the desired player. If the „Auto“ LED on the far left of the VAX04101 lights up, the switch should automatically switch to the respective HDMI input of the player and output picture and sound. If the Auto-Switch function is deactivated, select inputs 2 to 4 manually. (To activate or deactivate the Auto-Switch function, press the VAX04101 „Auto/Input“ button for 3 seconds or tap the „Auto Source“ button on the VAX04101 remote control).

b) Installation on the TV and soundbar

1. Disconnect all devices from the mains by pulling the plug.
2. Only for Sonos: In the Sonos app on your smartphone, make sure that „TV autoplay“ is switched on under Home cinema. Then close the Sonos app („TV autoplay“ should be activated by default. If you do not have a Sonos app, skip this step)
3. Connect the VAX04101 TV OUT connection to the HDMI ARC port on your TV
4. Connect the VAX04101 HDMI 1 to Sound connection to the HDMI eARC connection of the soundbar
5. Connect your first player to the VAX04101 input 2.
6. If applicable: Connect your second player to the VAX04101 input 3.
7. If applicable: Connect your third player to the VAX04101 input 4.
8. Then plug in the power plug from the TV and Soundbar / Sonos Arc/Beam 2.
9. Plug in the power plug from the VAX04101 and set the EDID on the VAX04101 to „7.1“ (if your soundbar supports Dolby Atmos, otherwise to 5.1)
10. Switch on the TV. Make sure that HDMI-CEC is switched on on the TV. Depending on the TV manufacturer, this function is called Anynet+ (Samsung), Aquos Link (Sharp), BraviaLink (Sony), DigiLink (Grundig), EasyLink (Philips), Regza Link (Toshiba), Simplink (LG), TechniLink (TechniSat), VieraLink (Panasonic).
11. Tap the eARC button on the VAX04101 so that the eARC LED lights up.
12. The TV should now automatically switch off its internal speakers and display a message that HDMI-ARC is active. Otherwise, switch the TV to ARC sound output manually,
13. Select „Auto“ or „Passthrough“ in the TV menu under Audio format, not „PCM“.
14. Switch the TV to the HDMI input to which the VAX04101 is connected.
15. Then plug in the mains plugs of the players.
16. Then start the desired player. If the „Auto“ LED on the far left of the VAX04101 lights up, the switch should automatically switch to the respective HDMI input of the player and output picture and sound. If the Auto-Switch function is deactivated, select input 2 to 4 manually. (To activate or deactivate the Auto-Switch function, press the VAX04101 „Auto/Input“ button for 3 seconds or tap the „Auto Source“ button on the VAX04101 remote control).
17. The VAX04101 delivers the sound from external players 2 to 4 via the soundbar if eARC is switched on at the switch and the respective HDMI input 2 to 4 is selected.
18. The VAX04101 delivers the sound from the TV (internal TV apps and TV tuner) via the soundbar if eARC is switched on at the switch and HDMI input 1 is selected.
19. Audio output via the TV speakers (without soundbar) is possible if eARC is switched off on the VAX04101 and an audio format supported by the TV (e.g. stereo) is played.

c) Installation with Apple TV 4K and Homepods on video projector or TV

1. Disconnect all devices from the power supply by pulling the plug.
2. Connect the VAX04101 TV OUT connection to the HDMI input of the video projector or HDMI ARC port of the TV
3. Connect the VAX04101 HDMI 1 to the Sound connection to the HDMI eARC connection of the Apple TV 4K.
4. Connect your second player to the VAX04101 input 2.
5. If applicable: Connect your third player to the VAX04101 input 3.
6. If applicable: Connect your fourth player to the VAX04101 input 4.
7. Then plug in the power plug from the video projector/TV.
8. Start the video projector or TV and select the connected HDMI input as the signal input.
9. Insert the power plug from the VAX04101. Set the EDID on the VAX04101 to „7.1“, or for Homepod mini speakers to „2.0“.
10. Then plug in the power plugs from the Apple TV and other players.
11. Then start the Apple TV. If the „Auto“ LED on the far left of the VAX04101 lights up, the switch should automatically switch to the respective HDMI input of the player and output picture and sound. If the Auto-Switch function is deactivated, select input 1 manually. (To activate or deactivate the Auto-Switch function, press the VAX04101 „Auto/Input“ button for 3 seconds or tap the „Auto Source“ button on the VAX04101 remote control).
12. Open the „Settings“ menu on the Apple TV 4K. Navigate to „Video and Audio“ > „Audio Output“ and select „HomePod“ (or „HomePod Stereo Pair“)
13. The audio output should now always be via the HomePods, even if another player is selected or the TV's internal sound is playing. Please note that the Homepods only support a few audio formats. If in doubt, set the audio format on the other players to stereo.

Instruction manual and technical information

- 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

With this setting, the HDMI source recognizes that all sound formats are accepted (7.1 is the technical maximum and also adequately supplies sound systems with 9.1 or 11.1 channels). Please note that your sound system should have an eARC connection. Not all audio formats can be transmitted via the older ARC connection. Please set 7.1 if your soundbar supports Dolby Atmos.

5.1

5.1 informs the HDMI source that formats up to 5.1 are supported. This includes Dolby Digital (AC3), DTS, PCM5.1 and PCM stereo. Please set 5.1 if your soundbar supports Dolby Digital but not Dolby Atmos.

2.0

If 2.0 is set, the HDMI source is only informed that stereo sound is supported. The sound system and TV should therefore always have sound.

Auto

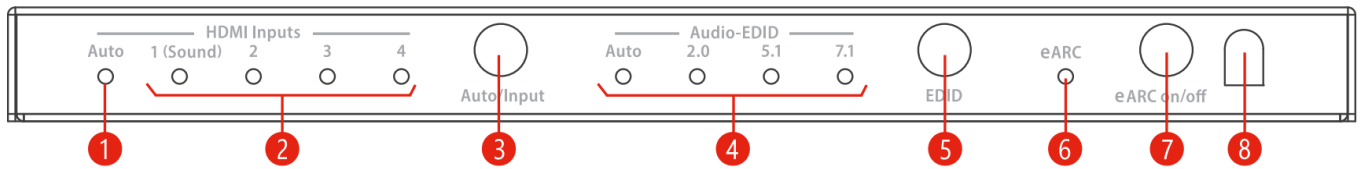
There is no intervention in the management of the sound format and it is automatically negotiated between the source and the TV. The TV therefore limits the audio format used. The soundbar therefore only supports the same formats as without the VAX04101. Note: With some HDMI sources, you can set the audio output manually and thus override the negotiation via EDID. eARC is fully backward compatible with ARC and can transmit additional audio formats such as multi-channel PCM, Dolby MAT, Dolby Atmos, Dolby TrueHD and DTS-HD. However, your soundbar may not support all audio formats.

Installation and Operation

- Connect 1 to 3 HDMI signal sources (e.g. Bluray player) to the HDMI inputs 2–4. 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 Fibre 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, the sound is output from the HDMI ARC to Sound 1 connector.
8. Remote control infrared receiver window

Remote control

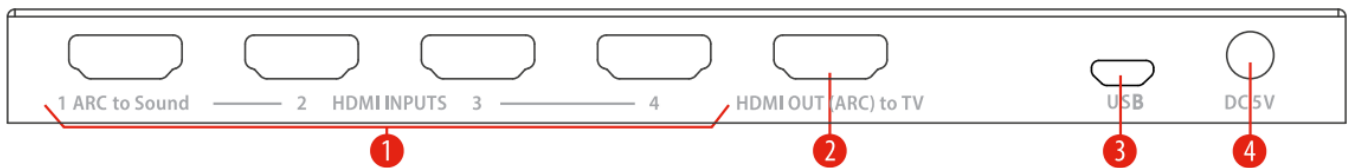
The supplied infrared remote control controls the same functions as the buttons on the front panel:

- 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

Playback from HDMI source, sound via soundbar 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.

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 that the HDMI cable supports ARC.

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 soundbar via HDMI, they can be played. If available, you can access the soundbar menu this way.

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

Power supply model identifier	NBS05B050100VE
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

FAQs

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 TV, 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 TV apps or cable/satellite TV 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 TV is neither necessary nor recognizable. 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 TV 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 on 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 off eARC on the VAX04101?

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

I would like to control the volume of the Sonos soundbar with the remote control of the player. How can I do this?

The Sonos soundbar can be controlled via HDMI-CEC or with any infrared remote control. The Apple TV or Fire TV remote controls also provide a suitable infrared signal. Please activate the Use IR function in the Sonos app under "TV setup" and execute "Set up remote control".

When I play a film from Bluray, I have no sound. What can I do?

- Bluray often has the audio formats DTS or DTS-HD. The VAX04101 supports these, and the Bluray player recognizes this and plays them. However, not all soundbars support these formats and will then remain silent. In this case, select a different soundtrack, e.g. Dolby. Or set the player so that DTS formats are decoded. This function can also be used with Xbox and Playstation (in the Bluray menu when a disc is inserted). The player then outputs the sound uncompressed as PCM 5.1 or 7.1. All soundbars with eARC can process this.

I have connected 2 or 3 players. After a short time (often 15 minutes), all the devices suddenly switch themselves off. What can I do?

A function is active on one of the players that switch off when inactive. Because it has also been set to control all connected devices automatically, the devices switch off. So either increase the time duration, deactivate the switch-off function or the automatic device control of the player

When switching between films, the screen briefly goes black. What can I do?

A function is active on your player that always outputs films to the screen in the original video format. Films are usually produced at 24Hz, but the screen menu is often set to 50Hz/60Hz. The screen and player must therefore synchronize briefly. If this is not desired, you can switch off this function on the player (e.g. on Apple TV: adapt to content). Then you leave the processing of the different video formats to the screen, which usually works just as well.

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)

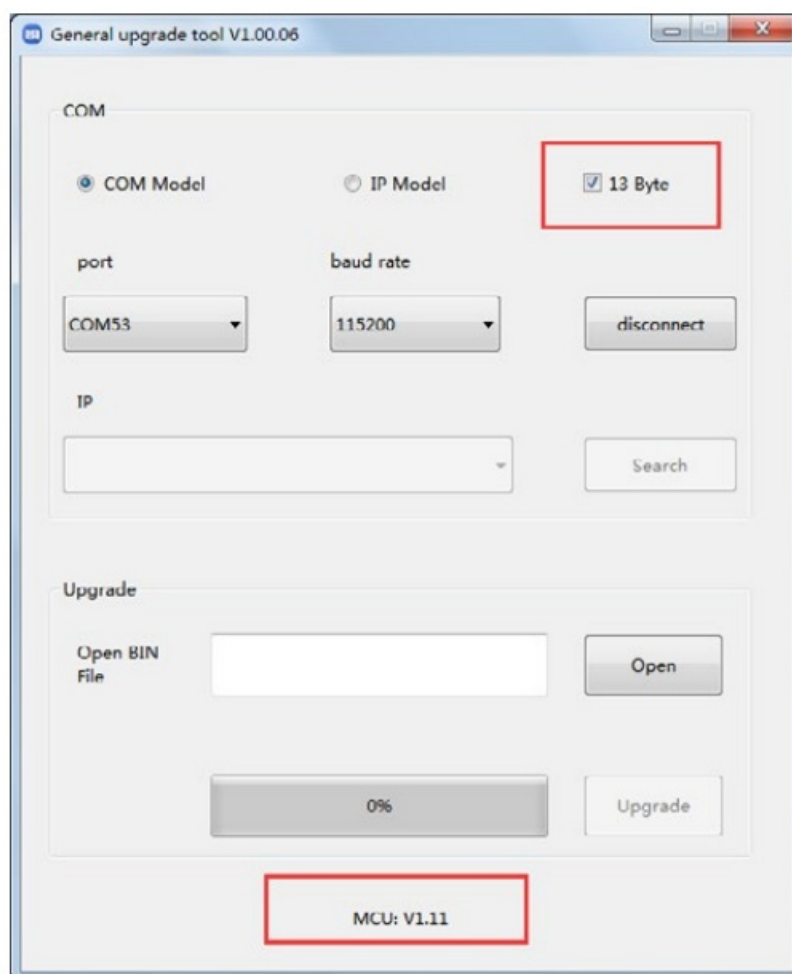
Hardware:

- 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	Betriebs-Temperaturbereich	-5° C bis +40° C
Operation humidity	Betriebs-Luftfeuchtigkeit	10 – 90 % RH (nicht kondensierend)
HDMI compliance	HDMI-Version	HDMI 2.0b
Signal input	Signal-Eingang	4 × HDMI
Copy protection	Unterstützter Kopierschutz	HDCP 2.2 & 1.x
Data rate	Daten-Übertragungsrate	18 Gbit/s (Maximum)
Data bandwidth	Maximale Bandbreite	600 MHz
Supported video resolution	Unterstützte Videoformate	max. 4K @60Hz (4096 × 2160p)
Signal outputs	Signal-Ausgänge	1 × HDMI, 1 × HDMI-eARC
Color space	Farbraum	RGB, YCbCr 4:4:4, 4:2:2; 4:2:0
Supported color depth	Unterstützte Farbformate	3 × 8 Bit – 10 Bit – 12 Bit
HDR	HDR (High Dynamic Range)	HDR10, HDR10+, HLG, Dolby Vision
ARC (Audio Return Channel)	ARC-Unterstützung	yes

eARC (enhanced Audio Return Channel)	eARC-Unterstützung	yes
Audio formats HDMI out & HDMI eARC	Audio Formate HDMI out & HDMI eARC Anschluss	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	HDMI-CEC Steuerung	yes
Recom. HDMI cable length	Empfohl. HDMI-Kabellänge	4k 60Hz: in < 5 m, out < 3 m
Power consumption	Leistungsaufnahme	< 2 W
Average energy efficiency	Durchschn. Energieeffizienz	74.25 %
ESD protection	Schutz vor elektrostatischer Entladung	Human Body Model: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Size (W×L×H)	Abmessungen (B×L×H)	183 × 85 × 19 mm
Battery type remote control	Batterietyp Fernbedienung	CR2025


CONTACT INFORMATION

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Documents / Resources

 <p>VAX04101 HDMI eARC Pass Switch 4x1</p> <p>DE: Bedienungsanleitung 2 - 16 EN: Instruction manual 17 - 26 FR: Instructions d'utilisation 27 - 36 IT: Istruzioni per l'uso 37 - 46 ES: Instrucciones de uso 47 - 56</p>	<p>FeinTech VAX04101 HDMI eARC Pass Switch 4x1 [pdf] Instruction Manual</p> <p>VAX04101 HDMI eARC Pass Switch 4 1, VAX04101, HDMI eARC Pass Switch 4 1, Pass Switch 4 1, Switch 4 1</p>
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References

- [FeinTech | Dein Spezialist für Audio, Video & HDMI | Offizieller Shop](#)
- [CE Konformitätserklärungen - FeinTech](#)
- [User Manual](#)

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