BZB2GEAR®

Solutions to Amplify Your World™

BG-8K-HS21

8K 2x1 HDMI 2.1 Switcher

User Manual

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Statement

Please read these instructions carefully before connecting, operating, or configuring this product. Please save this manual for future reference.

Safety Precaution

- To prevent damaging this product, avoid heavy pressure, strong vibration, or immersion during transportation, storage, and installation.

- The housing of this product is made of organic materials. Do not expose to any liquid, gas, or solids which may corrode the shell.

- Do not expose the product to rain or moisture.

- To prevent the risk of electric shock, do not open the case. Installation and maintenance should only be carried out by qualified technicians.

- Do not use the product beyond the specified temperature, humidity, or power supply specifications.

- This product does not contain parts that can be maintained or repaired by users. Damage caused by dismantling the product without authorization from BZBGEAR is not covered under the warranty policy.

- Installation and use of this product must strictly comply with local electrical safety standards.

Introduction

The BG-8K-HS21 is an 8K 2x1 HDMI 2.1 switcher that can switch 2 connected HDMI sources to 1 HDMI display. It supports video resolutions up to 8K@60Hz 4:4:4 with up to 48Gbps of video bandwidth. It is suitable for outdoor displays, video conferencing, security monitoring, home theater, and other applications.

The BG-8K-HS21 also works well with XBOX series X and PS5 gaming consoles to achieve a resolution of 4K@120hz on compatible TVs and monitors. Users can switch between two sources by pressing the button on the top panel of the switcher.

Features

- HDMI 2.1 and HDCP 2.3 compliant
- Support 48Gbps video bandwidth
- 8K@60Hz 4:4:4 8/10/12-bit, 8K@60Hz 4:2:0 12-bit, 8K@ 30Hz 4:4:4 10-bit, 4K@120Hz 4:4:4 10-bit video support
- HDR, HDR10, HDR10+, Dolby Vision, HLG pass through
- VRR, FVA, ALLM
- HDMI audio formats: LPCM 7.1CH, Dolby TrueHD, and DTS-HD Master Audio
- 2x1 manual switch or auto switch capabilities
- Built-in Equalizer and Driver
- Auto EDID management
- Compact design for easy and flexible installation

Packing List

- 1x 8K Two-Input HDMI Switcher
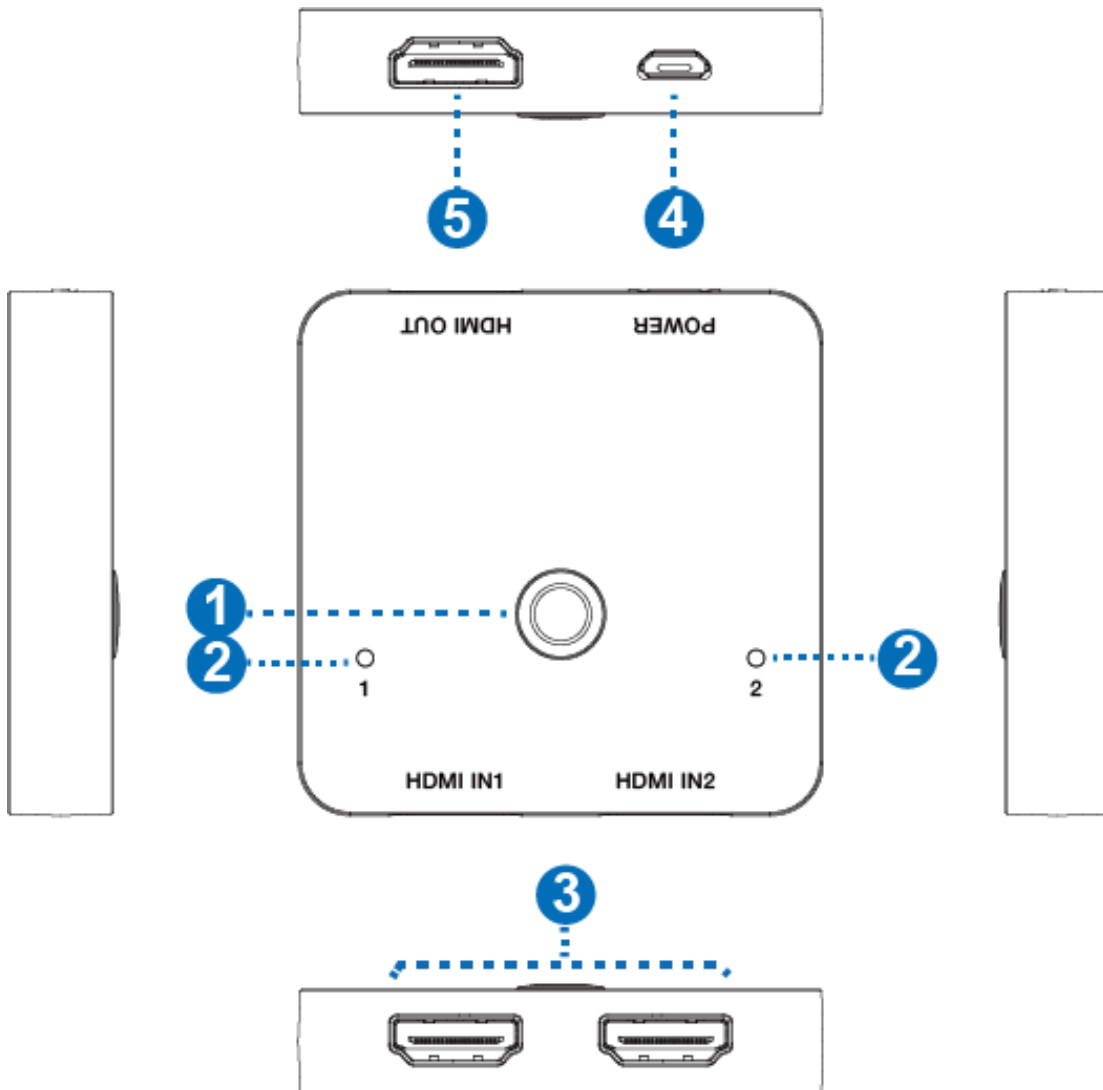
- 1x Micro USB Power Cable

- 1x User Manual

Specifications

Technical	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	48 Gbps
Video Resolution	Up to 8K@60Hz 4:4:4 8/10/12-bit, 8K@60Hz 4:2:0 12-bit, 8K@30Hz 4:4:4 10-bit, 4K@120Hz 4:4:4 10-bit
Color Depth	8-bit,10-bit,12-bit
Color Space	RGB, YCbCr 4:4:4 / 4:2:2 / 4:2:0
HDMI Audio Formats	LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Connection	
Input	2× HDMI IN [Type A, 19-pin female]
Output	1× HDMI OUT [Type A, 19-pin female]
Mechanical	
Housing	Plastic Enclosure
Silkscreen Color	Black
Dimensions	60mm (W) × 60mm (D) × 12mm (H)
Weight	31g
Power Supply	USB 5V
Power Consumption	1.25W (Max)
Operation Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)

Operation Controls and Functions

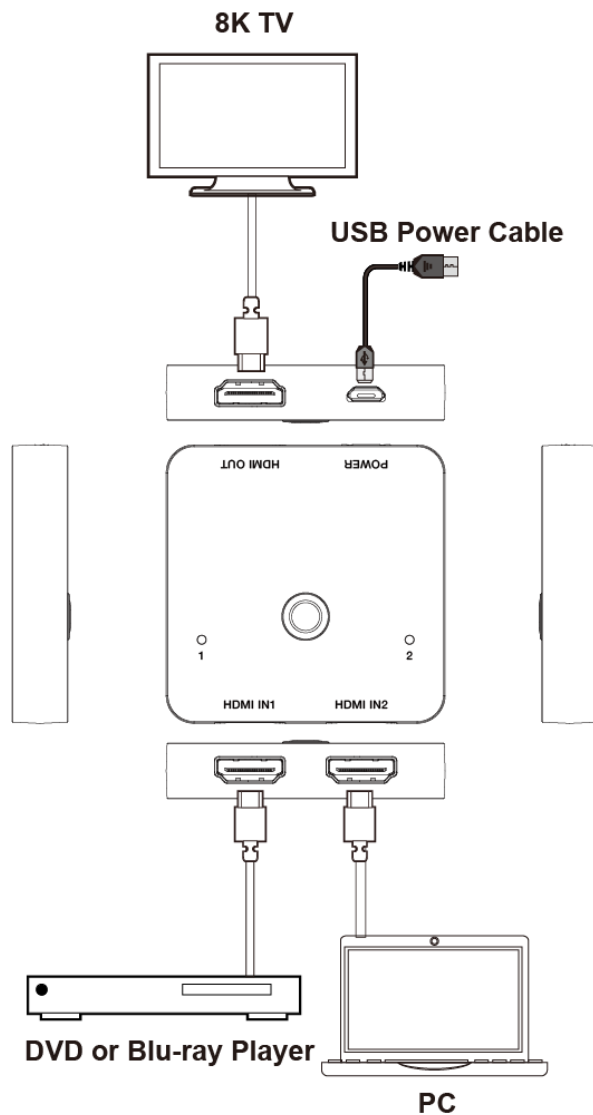| No.	Name	Function Description
1	Switch button /Power LED	Short pressing the switch button will allow the device to switch between the two HDMI input signals to the HDMI display; long press this button to enter the auto switching mode. When a new device is detected it will automatically switch. Power: When the device is powered on, the green power LED will illuminate.
2	Input LED (1~2)	When an HDMI IN port is selected as the input source channel, the corresponding green LED will illuminate.
3	HDMI IN1/2 port	Connect to HDMI source devices such as a Bluray player or PS5 with an HDMI cable.
4	POWER	DC 5V USB power input port.
5	HDMI OUT port	Connect to an HDMI display device such as a TV or Monitor with an HDMI cable.

Notes:

1. While using the HDMI switcher, using the Micro USB cable power is not always necessary. However, some HDMI devices may have insufficient power via HDMI and will require the Micro USB to be connected to a power source.
2. If you need to use the switcher to output signals of 4K@120Hz or 8K@60Hz, please ensure that your HDMI cables (HDMI signal source and HDMI display) all support the above resolutions.
3. The length of the HDMI cables connected to both ends of the switcher should not be too long, otherwise, it will easily cause the screen to flicker. The following HDMI cables lengths are suggested:

8K@60, 8K@30, 4K@120: Ultra HDMI 2.1 cable, IN/OUT 2 meters.

4K@60 4:4:4: HDMI 2.0 cable, IN/OUT 3 meters.

4K@60 4:2:0, 4K@30, 1080P: HDMI cable, IN/OUT 5 meters.

Application Diagram

Tech Support

Have technical questions? We may have answered them already!

Please visit BZBGEAR's support page (bzbgear.com/support) for helpful information and tips regarding our products. Here you will find our Knowledge Base (bzbgear.com/knowledge-base) with detailed tutorials, quick start guides, and step-by-step troubleshooting instructions. Or explore our YouTube channel, BZB TV (youtube.com/c/BZBTVchannel), for help setting up, configuring, and other helpful how-to videos about our gear.

Need more in-depth support? Connect with one of our technical specialists directly:

Phone	**Email**	**Live Chat**
1.888.499.9906	support@bzbgear.com	bzbgear.com

Warranty

BZBGEAR Pro AV products and cameras come with a three-year warranty. An extended two-year warranty is available for our cameras upon registration for a total of five years.

For complete warranty information, please visit bzbgear.com/warranty.

For questions, please call 1.888.499.9906 or email support@bzbgear.com.

Mission Statement

BZBGEAR is a breakthrough manufacturer of high-quality, innovative audiovisual equipment ranging from AVoIP, professional broadcasting, conferencing, home theater, to live streaming solutions. We pride ourselves on unparalleled customer support and services. Our team offers system design consultation, and highly reviewed technical support for all the products in our catalog. BZBGEAR delivers quality products designed with users in mind.

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