

# BG-UHD-42M

**4x2 HDMI 2.0 Matrix Switcher with Audio**  
**Extract/Scale/ARC/EDID function**

## User Manual







## TABLE OF CONTENTS

Statement	4
Safety Precaution	4
Introduction	5
Features	5
Packing List	5
Specifications	6
Operation Controls and Functions	7
Application Example	10
Tech Support	11
Warranty	11
Mission Statement	11
Copyright	12



## Statement

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

## Safety Precaution

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- 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.
- Unplug this device during lightning storms
- Clean only with a soft dry microfiber cloth.
- 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.
- Only use accessories specified by the manufacturer.
- Product specifications may be subject to technical upgrades without further notice



## Introduction

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The BZ-UHD-42M HDMI Matrix Switcher can switch any of four HDMI sources to two HDMI displays. It supports resolution up to 4K2K@60Hz YCbCr 4:4:4 and HDCP 2.2. It can extract HDMI source device audio to optical and analog L/R output. It supports 4K→1080P downscale function if the source is 4K but TV only supports up to 1080P. It also supports ARC and EDID (AUTO/COPY/ STD) functions. With its 18Gbps bandwidth and the additional features with latest HDMI standards. Flexible control via front panel buttons and IR remote.

## Features

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- HDMI 2.0, HDCP 2.2 / HDCP 1.4 and DVI 1.0 compliant
- Supports 4 HDMI inputs and 2 HDMI outputs
- Video resolution up to 4K2K@60Hz YCbCr 4:4:4
- Supports 18Gbps uncompressed bandwidth on all HDMI
- Supports Dolby Vision, HDR 10+, HLG and CEC function
- Supports extract HDMI input source device audio of OUT A or OUT B to optical and analog L/R output
- OUT A and OUT B support 4K to 1080P downscale function
- Supports ARC (Audio Return Channel) function
- Supports advanced EDID management including AUTO, COPY and STD
- Control is via front panel buttons and IR remote

## Packing List

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- 1x HDMI 2.0 Matrix Switcher
- 1x 12V/1A Locking Power Adapter
- 2x Mounting Ears
- 1x IR Remote
- 1x User Manual
- 1x Quick Start Guide



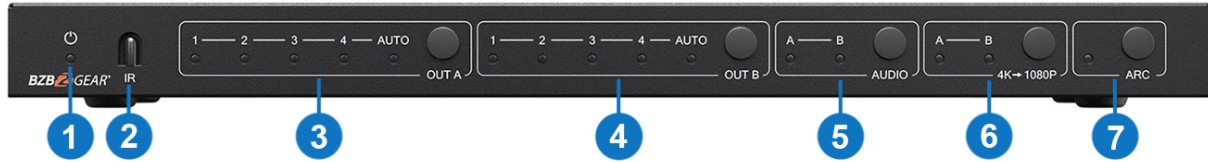
## Specifications

<b>Technical</b>	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2 and HDCP 1.4
Video Bandwidth	18 Gbps
Video Resolution	Up to 4K2K@50/60Hz(YCbCr 4:4:4), 4K2K@30Hz. All HDMI 3D TV formats, etc.
Color Space	RGB, YCbCr4:4:4, YCbCr4:2:2, YCbCr 4:2:0
Color Depth	8-bit, 10-bit, 12-bit [1080P, 4K@30Hz, 4K@60Hz (YCbCr 4:2:0)] 8-bit [4K@60Hz (YCbCr4:4:4)]
HDMI Audio Formats	PCM2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Optical Audio Formats	PCM2.0, Dolby Digital / Plus, DTS
L/R Audio Formats	PCM2.0CH (Note: If ARC function is turned on, the audio port will mute.)
ESD Protection	Human-body Model: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
<b>Connections</b>	
Input Ports	4×HDMI Type A [19-pin female]
Output Ports	2×HDMI Type A [19-pin female] 1×L/R audio out [3.5mm Stereo Mini-jack] 1×OPTICAL audio out [S/PDIF]
<b>Mechanical</b>	
Housing	Metal Enclosure
Color	Black
Dimensions	9.9"(W) x 4.1"(D) x 0.79"(H) [251mm(W) x 105mm(D) x 20mm(H)]
Weight	1.97lbs [620g]
Power Supply	Input: AC100~240V 50/60Hz Output: DC12V/1A
Power Consumption	3.8W (max)
Operating Temperature	32°F ~ 104°F / 0°C ~ 40°C
Storage Temperature	-4°F ~ 140°F / -20°C ~ 60°C
Relative Humidity	20~90% RH (non-condensing)



## Operation Controls and Functions

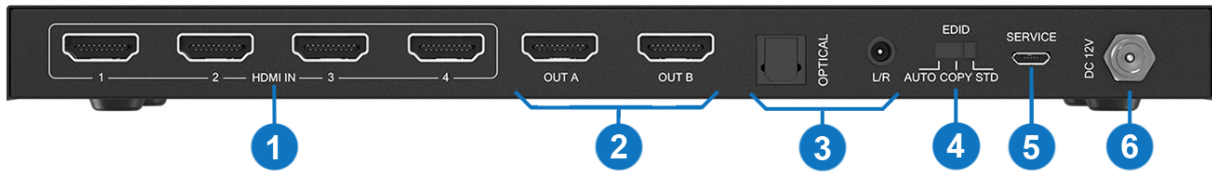
### Front Panel



Number	Name	Function description
1	Power LED	The blue LED will illuminate when the product is connected power supply.
2	IR	IR receiver window. It only receives IR remote signal from this product.
3	OUT A button and LED	Press the OUT A button to select an input source to OUT A output, the corresponding blue LED will illuminate.
	AUTO LED	The blue AUTO LED will illuminate and the AUTO function will be turned on when you press the OUT A button up to 3 seconds, press the OUT A button up to 3 seconds again will turn off the AUTO function. AUTO function: Detect input signal source. The AUTO function is turned on, if an or a few HDMI IN ports are connected source device, OUT A port will output the signal from the last connected input source.
4	OUT B button and LED	Press the OUT B button to select an input source to OUT B output, the corresponding blue LED will illuminate.
	AUTO LED	The blue AUTO LED will illuminate and the AUTO function will be turned on when you press the OUT B button up to 3 seconds, press the OUT B button up to 3 seconds again will turn off the AUTO function. AUTO function: Detect input signal source. The AUTO function is turned on, if an or a few HDMI IN ports are connected source device, OUT B port will output the signal from the last connected input source.
5	AUDIO button	<ul style="list-style-type: none"> <li>Press AUDIO button to select extract the input source audio from OUT A port or OUT B port to optical and analog L/R output, the corresponding blue LED will illuminate.</li> <li>If ARC function is turned on, press Audio button to select return the audio signal from OUT A or OUT B display device to optical output, the corresponding blue LED will illuminate. At this time, the analog L/R port is mute.</li> </ul>
6	4k—*1080P button	Press the button to select OUT A or OUT B 4k—*1080P downscale function, the corresponding blue LED will illuminate. For example, if source is 4K but TV only supports 1080P, at this time the input resolution with 4K will downscale to 1080P to TV output.
7	ARC button	Turn on / off ARC function. The ARC LED will illuminate when you turn on the ARC function.



## Rear Panel

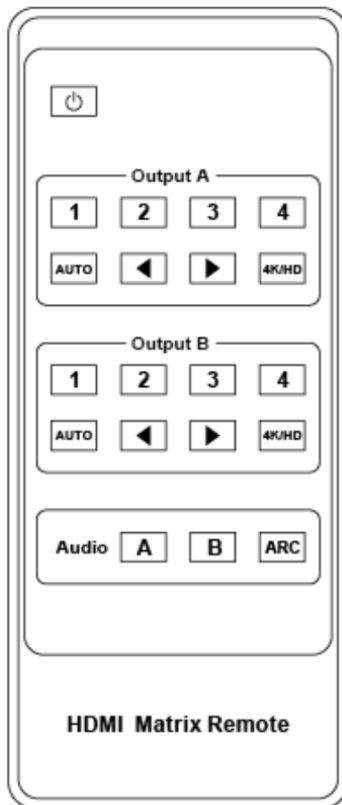


Number	Name	Function description
1	HDMI IN port	HDMI input ports, connect to HDMI source device such as DVD or PS4 with an HDMI cable.
2	HDMI OUT A/ OUT B port	HDMI output ports, connect to HDMI display device such as TV or Monitor with an HDMI cable.
3	OPTICAL / L/R port	Connect to audio output device such as amplifier or speaker with optical and analog audio cable.
4	EDID AUTO/ COPY / STD	AUTO: Compare with Out A and Out B display device's EDID information, and then sending the best EDID information to source device of Out A and Out B. The source device of Out A and Out B will send the EDID information again to Out A and Out B display device output. COPY: Copy Out A display device ' s EDID information to source device of Out A and Out B. Then the source device of Out A and Out B will send the EDID information again to Out A and Out B display device output. STD: Out A and Out B display device output default 1080P.
5	SERVICE port	Firmware update port.
6	DC 12V	Plug in 12V/1A adapter to AC wall outlet for power supply.





## IR Remote



Power on the product or set it to standby mode.

### Output A

**1/2/3/4:** Select input source signal to Out A port output, the corresponding blue LED on the front panel will illuminate.

**◀ ▶ :** Select the last or next input source signal to OUT A port output, the corresponding blue LED on the front panel will illuminate.

**AUTO:** Detect input signal source. The Auto function is turned on, if an or a few HDMI IN ports are connected source device, Out A port will output the signal from the last connected input source.

**4K/HD:** Select Out A 4k→1080P downscale function.

For example, if source is 4K but TV only supports 1080P, at this time the input resolution with 4K will downscale to 1080P to TV output

### Output B

**1/2/3/4:** Select input source signal to Out B port output, the corresponding blue LED on the front panel will illuminate.

**◀ ▶ :** Select the last or next input source signal to OUT B port output, the corresponding blue LED on the front panel will illuminate.

**AUTO:** Detect input signal source. The Auto function is turned on, if an or a few HDMI IN ports are connected source device, Out B port will output the signal from the last connected input source.

**4K/HD:** Select Out B 4k→1080P downscale function. For example, if source is 4K but TV only supports 1080P, at this time the input resolution with 4K will downscale to 1080P to TV output

### Audio function

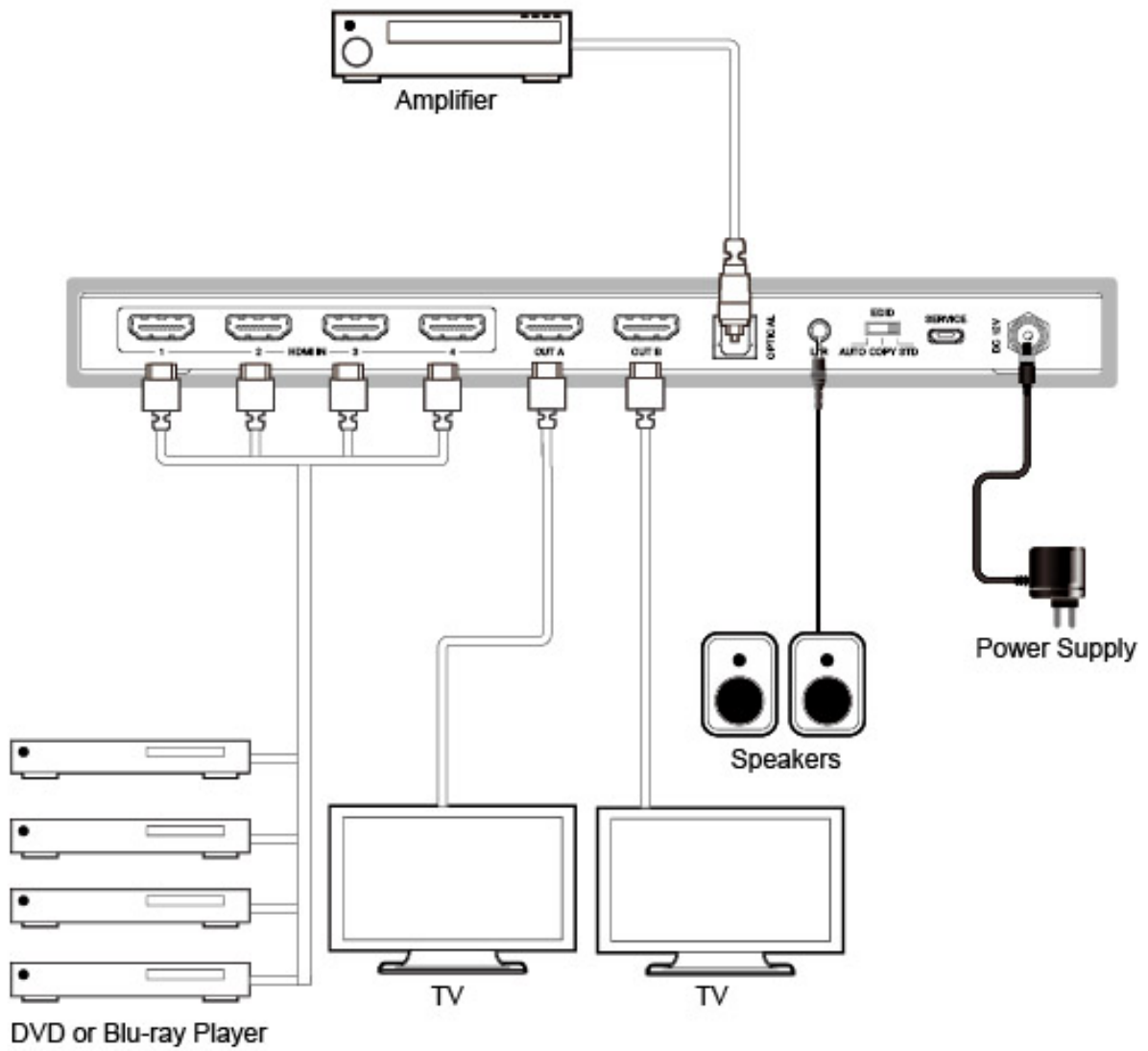
**ARC:** Turn on / off ARC function.

#### Audio A / B:

- If ARC function is turned on, press Audio A or B button to select return the audio signal from Out A or Out B display device to optical port (TOSLINK) output. At this time, the analog L/R port (Audio out) is mute.
- If ARC function is turned off, press Audio A or B button to select extract the input source audio from Out A port or Out B port to optical port (TOSLINK) and analog L/R port (Audio out) output.



## Application Example





## Tech Support

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Have technical questions? We may have answered them already!

Please visit BZBGear's support page ([bzbgear.com/support](http://bzbgear.com/support)) for helpful information and tips regarding our products. Here you will find our Knowledge Base ([bzbgear.com/knowledge-base](http://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](http://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**

1.888.499.9906

**Email**

[support@bzbgear.com](mailto:support@bzbgear.com)

**Live Chat**

[bzbgear.com](http://bzbgear.com)

## Warranty

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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](http://bzbgear.com/warranty).

For questions, please call 1.888.499.9906 or email [support@bzbgear.com](mailto:support@bzbgear.com).

## Mission Statement

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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.



## Copyright

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