

BLACKBIRD™



Blackbird™ by Monoprice™ **4K 4×2 HDMI® SWITCH**

P/N **39667**
User Manual

SAFETY WARNINGS AND GUIDELINES

Please read this entire manual before using the Blackbird™ 4K 4×2 HDMI® Matrix, paying extra attention to these safety warnings and guidelines. Please keep this manual in a safe place for future reference.

- This device is intended for indoor use only.
- Do not expose this device to water or moisture. Do not place drinks or other containers with moisture on or near the unit. If moisture does get in or on the unit, immediately unplug it from the power source and allow it to fully dry before reapplying power.
- Do not touch this device, the power cord, or any other connected cables with wet hands.
- Do not expose this device to excessive vibration, extreme force, shock, or fluctuations in temperature or humidity.
- Do not expose the unit to excessively high temperatures. Do not place it in, on, or near heat sources, like a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.
- Do not place or install the unit in an area where it can be exposed to excessive amounts of dust, humidity, oil, smoke, or explosive vapors.
- Before operation, check the unit and power cord for physical damage. Do not use if physical damage has occurred.
- Before plugging the unit into a power outlet, ensure that the outlet provides the same type and level of power required by the device.
- Unplug this transceiver from the power source when not in use.
- Take care to prevent damage to the power cord. Do not allow it to become crimped, pinched, walked on, or become tangled with other cords. Ensure that the power cord does not present a tripping hazard.
- Never unplug this device by pulling on the power cord. Always grasp the connector head or adapter body.
- Ensure power is turned off and disconnected before making any electrical connections.
- Do not use chemical cleaners or solvents to clean these mounts. Use only a soft cloth that's slightly moistened with warm water.
- This device has no user-serviceable parts. Do not attempt to open, service, or modify it.

⚠ WARNING	
• INGESTION HAZARD: This product contains a button cell or coin battery • DEATH or serious injury can occur if ingested. • A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours. • KEEP new and used batteries OUT OF REACH of CHILDREN • Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body.	

- Remove and immediately recycle or dispose of used batteries according to local regulations and keep them away from children. Do NOT dispose of batteries in household trash or incinerate them.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- Identification of compatible battery type: CR2025
- Nominal battery voltage: 3V
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating), or incinerate. Doing so may result in injury due to venting, leakage, or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Do not mix old and new batteries, different brands, or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period according to local regulations.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

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INTRODUCTION

This Blackbird™ 4K 4×2 HDMI® Matrix by Monoprice™ allows you to distribute any of four HDMI sources to either or both connected displays. It fully complies with the HDMI 2.0b and HDCP™ 2.2 and 1.4 specifications. It supports video resolutions up to 4K @ 60 Hz with the YCbCr 4:4:4 color space. It can extract the audio from either output and send it to the digital optical S/PDIF and stereo analog audio outputs. It can downscale 4K video to 1080p. It supports the Audio Return Channel (ARC) feature and includes an IR remote control. It features EDID® management and supports up to 18Gbps bandwidth. It supports the Dolby Vision™, HDR10+, and Hybrid Log-Gamma (HLG) high-dynamic range video encoding standards.

FEATURES

- Distribute any of four video inputs to either or both connected displays
- Fully compliant with the HDMI® 2.0b and HDCP™ 2.2 and 1.4 specifications
- Supports video resolutions up to 4K @ 60 Hz with YCbCr 4:4:4 color space
- Supports up to 18 Gbps bandwidth
- Can extract the audio from either output and send it to the digital optical S/PDIF and stereo analog audio outputs
- Can downscale 4K video to 1080p
- Supports the Audio Return Channel (ARC) feature
- Includes an IR remote control and EDID® management
- Supports the Dolby Vision™, HDR10+, and Hybrid Log-Gamma (HLG) high-dynamic range video encoding standards

PACKAGE CONTENTS

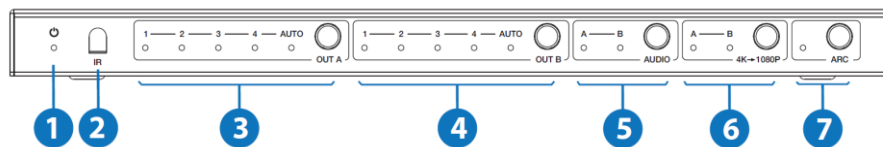
Take an inventory of the package contents to make sure you have all the items listed below.

Please contact Monoprice Customer Service for a replacement if anything is missing or damaged.

- **1x** 4K 4×2 HDMI® Matrix
- **1x** IR Remote Control
- **1x** AC Power Adapter (12VDC, 1A)
- **2x** Mounting Ears
- **1x** User Manual

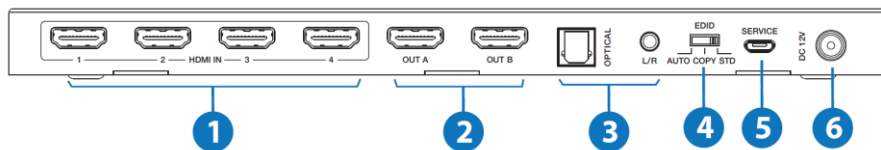
PRODUCT OVERVIEW

A. FRONT PANEL



1	POWER LED	The LED illuminates blue when power is applied.
2	IR	IR "eye" for receiving signals from the included IR remote control.
3	OUT A	Momentarily press the button to cycle forward through the available inputs. One of the numbered LEDs illuminates to indicate which input is selected. Press and hold the button for 3 seconds to toggle the automatic switching function on or off. The AUTO LED illuminates when AUTO mode is enabled.
4	OUT B	Momentarily press the button to cycle forward through the available inputs. One of the numbered LEDs illuminates to indicate which input is selected. Press and hold the button for 3 seconds to toggle the automatic switching function on or off. The AUTO LED illuminates when AUTO mode is enabled.
5	AUDIO	When ARC is off, press the button to toggle between extracting the audio from the A or B outputs to both the digital optical S/PDIF and analog stereo audio outputs. When ARC is on, press the button to toggle between receiving ARC audio from the A or B outputs to the digital optical S/PDIF audio outputs only. One of the LEDs illuminates to indicate the selected output.
6	4K→1080P	Press the button to cycle through which of the outputs is downscaled to 1080p. The cycle order is no outputs downscaled, output A downscaled, output B downscaled, and both outputs downscaled. The LEDs illuminate to indicate the downscaled outputs.
7	ARC	Press the button to turn the Audio Return Channel (ARC) feature on or off.

B. REAR PANEL

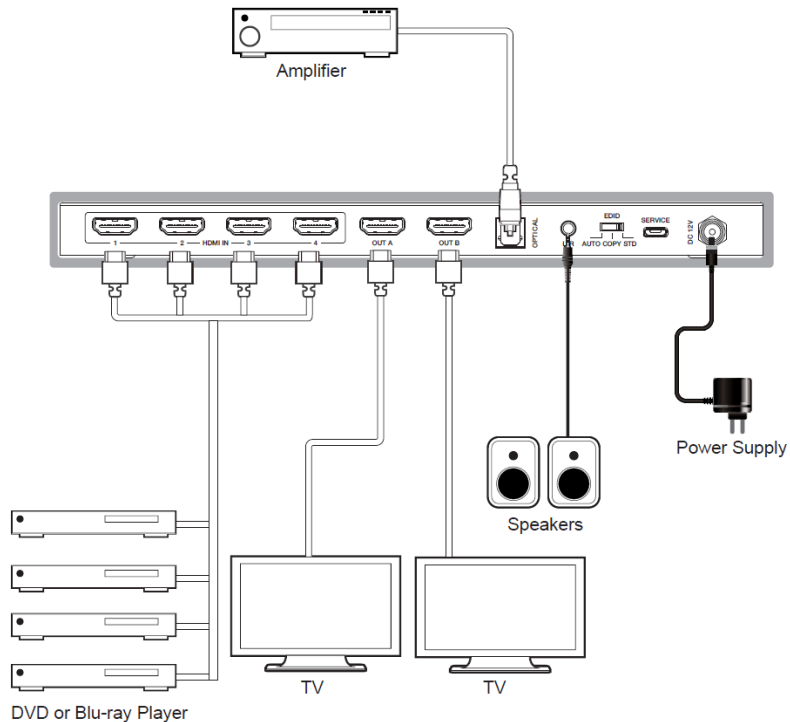


1	HDMI IN	Four HDMI® inputs for connecting the video source devices.
2	OUT A & OUT B	Two HDMI® outputs for connecting the video displays.
3	OPTICAL & L/R	Digital optical S/PDIF and 3.5mm stereo analog audio outputs.
4	EDID	Three-position slide switch to select which EDID® method to use. - AUTO: When the switch is in the AUTO position, the matrix will poll the EDID capabilities of each display, combine them to get the best possible EDID for both displays and send the combined EDID to the connected source device(s). The source device(s) will then send the combined EDID back to the corresponding displays. - COPY: When the switch is in the COPY position, the matrix will copy the EDID capabilities of the display connected to OUT A to the source device(s) connected to each output. The source device(s) will then send the EDID back to the corresponding displays. - STD: Sets the EDID of the source device(s) to output 1080p video.
5	SERVICE	Micro USB port for performing a firmware update.
6	DC 12V	DC barrel connector for connecting the included AC power adapter.

C. REMOTE CONTROL

1		Press the button to turn the unit on or put it into standby mode.
2	OUTPUT A	1/2/3/4: Directly select the corresponding input for Output A. ◀ ▶: Cycle backward or forward through the available inputs. - AUTO: Press the button to toggle automatic input switching on or off. 4K/HD: Press the button to toggle output downscaling on or off.
3	OUTPUT B	1/2/3/4: Directly select the corresponding input for Output B. ◀ ▶: Cycle backward or forward through the available inputs. - AUTO: Press the button to toggle automatic input switching on or off. 4K/HD: Press the button to toggle output downscaling on or off.
4	AUDIO	- A: When ARC is off, press the A button to extract the audio from OUT A to send to the digital optical S/PDIF and stereo analog audio outputs. When ARC is on, press the A button to receive ARC audio from OUT A to send to the digital optical S/PDIF audio output only. - B: When ARC is off, press the B button to extract the audio from OUT B to send to the digital optical S/PDIF and stereo analog audio outputs. When ARC is on, press the B button to receive ARC audio from OUT B to send to the digital optical S/PDIF audio output only. - ARC: Press the ARC button to toggle the Audio Return Channel feature on or off.

CONNECTION DIAGRAM



TECHNICAL SPECIFICATION

Model	39667
Inputs	4x HDMI®
Video Outputs	2x HDMI
Audio Outputs	Digital optical S/PDIF, 3.5mm stereo analog
Maximum Video Resolution	4K @ 60Hz with YCbCr 4:4:4
Video Bandwidth	18 Gbps
HDMI Version	2.0b
HDCP™ Version	2.2 and 1.4
Supported Color Spaces	RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8-bit, 10-bit, and 12-bit (1080p, 4K@30Hz, 4K@60Hz with YCbCr 4:2:0) 8-bit (4K@60Hz with YCbCr 4:4:4)
Supported HDMI Audio Formats	PCM 2.0/5.1/7.1, Dolby Digital™, Dolby Digital Plus™, Dolby® Digital EX, Dolby TrueHD™, DTS®, DTS-ES®, DTS 96/24™, DTS-HD™, DTS-HD Master Audio™, Direct Stream Digital™
Supported Digital Optical S/PDIF Formats	PCM 2.0, Dolby Digital, Dolby Digital Plus, DTS
Supported Analog Audio Formats	PCM 2.0
Input Power	12 VDC, 1A
AC Adapter Input Power	100 ~ 240 VAC, 50/60 Hz
Maximum Power Consumption	3.8 watts
Operating Temperature	+32 ~ +104°F (0 ~ +40°C)

Storage Temperature	-4 ~ +140°F (-20 ~ +60°C)
Operating Humidity	20 ~ 90% RH, non-condensing
Dimensions	9.9 × 4.1" × 0.8" (251 mm × 105 MM × 20 mm)
Weight	21.9 oz. (620 g)
Model	39667
Inputs	4x HDMI®
Video Outputs	2x HDMI

CUSTOMER SERVICE

The Monoprice Customer Service department is dedicated to ensuring that your ordering, purchasing, and delivery experience is second to none. If you have any problems with your order, please allow us to make it right. You can contact a Monoprice Customer Service representative through the Live Chat link on our website **www.monoprice.com** or via email at **support @ monoprice.com**. Check the website for support times and links.

TECHNICAL SUPPORT

Monoprice™ is pleased to provide free, live, online technical support to assist you with any questions you may have about installation, setup, troubleshooting, or product recommendations. If you ever need assistance with your new product, please come online to talk to one of our friendly and knowledgeable Tech Support Associates. Technical support is available through the online chat button on our website **www.monoprice.com** or through email by sending a message to **tech @ monoprice.com**. Check the website for support times and links.

To download the latest drivers, firmware, manuals, etc., go to **www.monoprice.com** and type **39667** into the search bar. If available, support files are linked at the bottom of the product page.

REGULATORY COMPLIANCE

NOTICE FOR FCC

 This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifying the equipment without Monoprice's authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency

energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTICE FOR ISED CANADA

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

DISPOSAL AND RECYCLING INFORMATION



The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electrical and electronic products via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your unwanted product, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

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EDID® is a registered trademark of the Video Electronics Standards Association.

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