

# **MONOPRICE**

**Blackbird 4K Pro 4x1 Ultra Slim HDMI® Switch**

P/N 21614

**User's Manual**

# SAFETY WARNINGS AND GUIDELINES

Please read this entire manual before using this device, 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 of any kind. Do not place drinks or other containers with moisture on or near the device. If moisture does get in or on the device, immediately unplug it from the power outlet and allow it to fully dry before reapplying power.
- Do not touch the device, the power cord, or any other connected cables with wet hands.
- Do not subject the product to extreme force, shock, or fluctuations in temperature or humidity. Do not expose this device to excessive vibration.
- Do not expose this device to excessively high temperatures. Do not place it in, on, or near heat sources, such as a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.
- Prior to 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.
- 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.
- Unplug this device from the power source when not in use. Never unplug the unit by pulling on the power cord. Always grasp the connector head or adapter body.
- Ensure that power is turned off and disconnected before making any electrical connections.
- Clean using a soft, dry cloth only. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.
- This device has no user serviceable parts. Do not attempt to open, service, or modify this device.

## INTRODUCTION

Thank you for purchasing this Blackbird 4K Pro 4x1 Ultra Slim HDMI® Switch! This switch allows you to connect up to four HDMI video sources to a single display. It supports video resolutions up to 4K@60Hz, including 1080p@60Hz and 3D 1080p@60Hz. It provides 18Gbps bandwidth and supports HDCP compliant video streams. It has a built-in signal amplifier, which allows for the use of 24AWG passive HDMI cables at lengths up to 32 feet (10 meters). It includes an infrared remote control and supports automated computer control via the RS232 port.

## FEATURES

- Connects up to four HDMI® sources to a single HDMI display
- Supports HDMI 2.0 and HDCP 2.2
- Provides 18Gbps bandwidth
- Supports video resolutions to 4K@60Hz 4:4:4, including 1080p@60Hz and 3D 1080p@60Hz
- Includes infrared remote control
- Supports automated computer control via the RS232 port
- Includes six built-in EDID modes and nine manually configurable EDID modes
- Supports the HDMI Consumer Electronics Control (CEC) feature
- Real-time switching status displayed on screen
- Built-in video amplifier allows for the use of 24AWG passive HDMI cable
- Micro USB power connector
- Supports firmware updates using the built-in USB port

## 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 problem with your order, please give us an opportunity to make it right. You can contact a Monoprice Customer Service representative through the Live Chat link on our website [www.monoprice.com](http://www.monoprice.com) during normal business hours (Mon-Fri: 5am-7pm PT, Sat-Sun: 9am-6pm PT) or via email at [support@monoprice.com](mailto:support@monoprice.com)

## PACKAGE CONTENTS

Please take an inventory of the package contents to ensure you have all the items listed below. If anything is missing or damaged, please contact Monoprice Customer Service for a replacement.

1x Blackbird 4K Pro 4x1 Ultra Slim HDMI® Switch

1x Infrared Remote Control

1x IR Receiver

1x RS232 cable

2x Mounting Ears

4x Mounting Screws

4x Plastic Cushions

1x Micro USB AC Power Adapter (5 VDC, 2A)

1x User's Manual

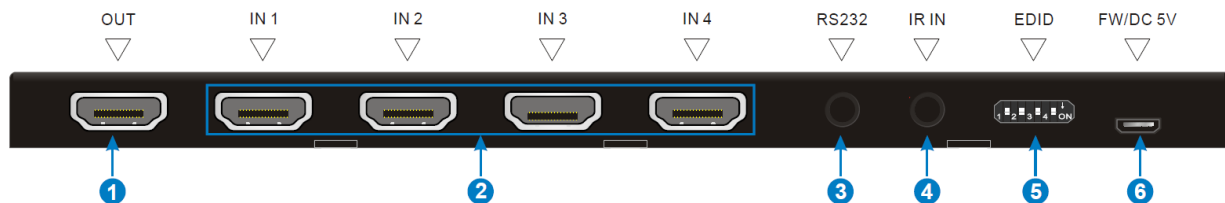
# PRODUCT OVERVIEW

## Front Panel



1. **Source/Mode Button:** Momentarily press the button to switch to the next source in the list. Press and hold the button for about 3 seconds to switch between Auto and Manual switching modes.
2. **Power LED Indicator:** Illuminates red when power is applied.
3. **Auto LED Indicator:** Illuminates green when in Auto switching mode and is off when in Manual switching mode.
4. **Output LED Indicators:** The LED corresponding to the currently selected source device illuminates green. The LEDs corresponding to the unselected sources will illuminate orange.

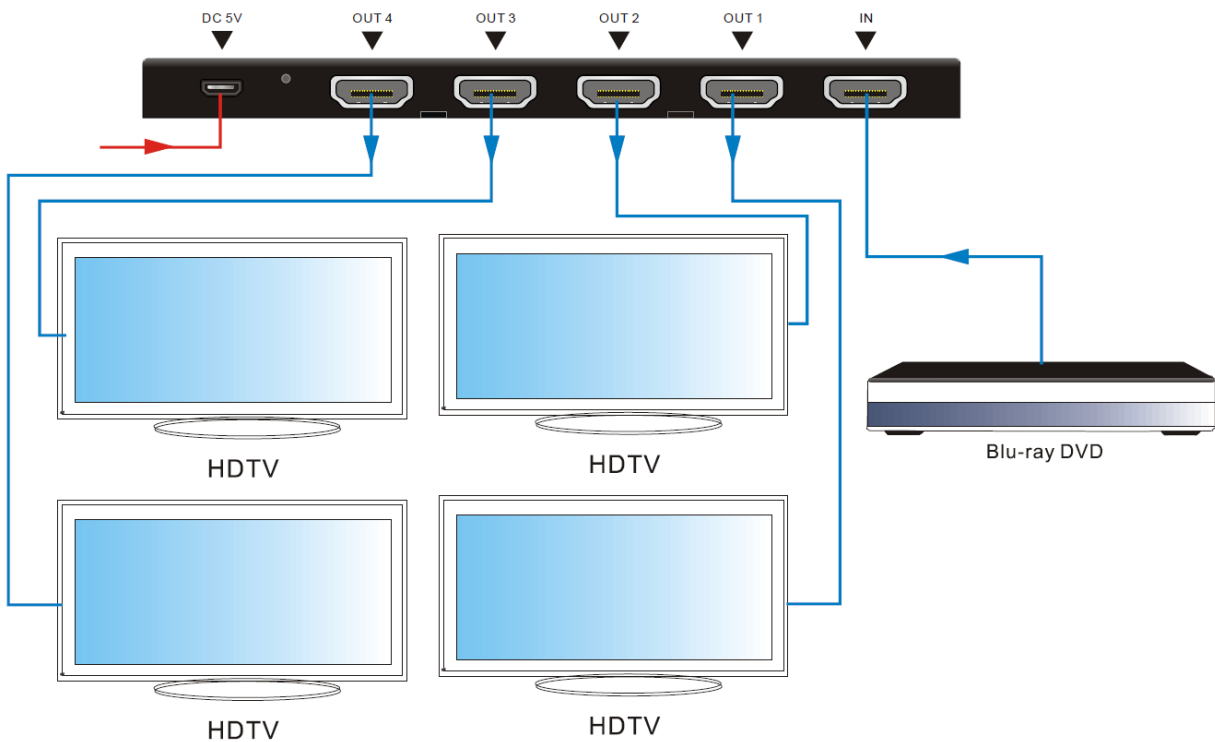
## Rear Panel



1. **HDMI Output Port:** Connect to the display using a High Speed HDMI® Cable (not included).
2. **HDMI Input Ports:** Connect to the HDMI video sources using High Speed HDMI Cables (not included).
3. **RS232 Input Jack:** 3.5mm jack for connecting the included RS232 cable.
4. **IR In:** 3.5mm jack for connecting the included IR receiver.
5. **EDID Switches:** Four DIP switches for selecting one of six

6. **Micro USB Power Port:** Micro USB port for powering the device or performing a firmware update.
7. **HDMI Output Ports:** Connect to the displays using High Speed HDMI® Cables (not included).
8. **HDMI Input Port:** Connect to the HDMI video source using a High Speed HDMI Cable (not included).

## SAMPLE CONNECTION DIAGRAM



# INSTALLATION

Perform the following steps to install this splitter into your home theater system.

1. Ensure that all equipment to be connected is powered off and unplugged from its power source.
2. Place or mount the splitter in its intended location.
3. Using a High Speed HDMI® Cable (not included), plug one end into the HDMI input on your first display, then plug the other end into the **OUT 1** port (5) on the splitter.
4. Repeat step 3 for the other displays and the other HDMI output ports.
5. Using a High Speed HDMI Cable (not included), plug one end into the **IN** port (4) on the splitter, then plug the other end into the HDMI output on your video source device.
6. Plug the Micro USB connector on the included AC power adapter into the **DC 5V** port on the splitter, then plug the adapter into a nearby AC power outlet. The **Power LED Indicator** (1) should illuminate red.
7. Plug in and power on the displays. The **Output LED Indicators** (3) will illuminate solid green if there are valid connections between the displays and the splitter.
8. Plug in and power on your HDMI video source device. Start playback of video content. The **HDCP LED Indicator** (2) should illuminate either solid or blinking green if there is a valid connection and you should see the video on each display.

*Congratulations, your splitter is properly installed and ready for use!*

## EDID MANAGEMENT

When the splitter is started, it will obtain EDID display information from the first display detected, which is usually the one connected to the **OUT 1 (3)** port. This determines the resolution that the video source device will output. When connecting displays, either use displays with the same maximum video resolutions or connect the display with the smaller maximum resolution to the other HDMI output ports.

For example, if you have one display with maximum resolution of 720p/1080i, another with a maximum resolution of 1080p, and two 4K displays, you should connect the 720p/1080i display to **OUT 1 (3)**, the 1080p display to **OUT 2 (3)**, and the 4K displays to **OUT 3 (3)** and **OUT 4 (3)**.

## TROUBLESHOOTING

Q1: There is video on all displays except one.

A1: Verify that the display is powered on and that the proper input is selected. If the display without video is connected to the **OUT 2**, **OUT 3**, or **OUT 4 (3)** port, ensure that the maximum resolution of the display is greater than or equal to that of display 1. Try swapping the video cable with a known good one.

Q2: There is no video on either display and the **HDCP LED Indicator (2)** is off.

A2: Verify that the video source device is powered on and that video material is being played. Try swapping the video cable with a known good one.

Q3: The **Power LED Indicator (1)** on the splitter is off.

A3: Verify that the AC adapter is plugged into the **DC 5V (4)** port on the splitter and is plugged into an AC power outlet. Verify that the AC power outlet is live by plugging in a different device, such as a lamp. Try using a different 2A USB power source, such as a wall charger, and Micro USB cable.



## 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](http://www.monoprice.com) during regular business hours, 7 days a week. You can also get assistance through email by sending a message to [tech@monoprice.com](mailto:tech@monoprice.com)

## SPECIFICATIONS

Model	21614
Maximum Video Resolution	4K@60Hz 4:4:4, including 1080p@60Hz and 3D 1080p@60Hz
Maximum Data Bandwidth	18Gbps
HDMI® Version	2.0
HDCP Version	2.2
Input	1x HDMI
Outputs	4x HDMI
Input Power Source	Micro USB, 5 VDC, 2A
AC Adapter Input Power	100 ~ 240 VAC, 50/60 Hz
Maximum Power Consumption	6.5 watts
Operating Temperature	+32 ~ +131°F (0 ~ +55°C)
Operating Humidity	10 ~ 90% RH, non-condensing
Dimensions	6.0" 0.4" x 2.8" (152 x 11 x 70 mm)
Weight	4.9 oz. (140 g)

# 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 into 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 Industry 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.

*Blackbird™ is a trademark of Monoprice Inc.*

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