

BLACKBIRD™

4K Pro 1x8 HDMI® Splitter



P/N 43962

User's Manual

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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 remove it from its power source 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 expose this device to excessive vibration or extreme force, shock, or fluctuations in temperature or humidity.
- Do not expose this device to excessively high temperatures. Do not place it in, on, or near a heat source, such as a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.
- Do not place or install this device in an area where it can be exposed to excessive amounts of dust, humidity, oil, smoke, or combustible vapors.
- 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.
- Unplug this device 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 the unit by pulling on the power cord. Always grasp the connector head or adapter body.

- 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

This 4K Pro 1x8 HDMI® Splitter allows you to distribute a single HDMI® video source to eight displays. It supports video resolutions up to 4K@60Hz, with YCbCr 4:4:4 color space, including all HDMI 1080p 3D modes. It fully complies with the HDMI 2.0 and HDCP™ 2.2 specifications, is backwards compatible with HDCP 1.4, and delivers up to 18Gbps bandwidth.

It can automatically downscale 4K video to 1080p for use with 1080p displays it supports multichannel, high-definition audio, and it includes advanced EDID® management. It supports HDMI Active Optical Cables (AOC) with 5 VDC, 200mA power available to each output and has a built-in equalizer to prevent signal attenuation in transmission. It supports the Consumer Electronics Control (CEC) feature to turn displays on or off and to adjust their volume levels and has upgradable firmware.

FEATURES

- Distributes a single HDMI® input to eight HDMI displays
- Supports video resolutions up to 4K@60Hz with the YCbCr 4:4:4 color space
- Supports all HDMI 1080p 3D modes
- Supports multichannel, high-definition audio
- Fully complies with the HDMI 2.0 and HDCP™ 2.2 specifications and is backwards compatible with HDCP 1.4
- Supports automatic video downscaling for use with 1080p displays
- Delivers up to 18Gbps bandwidth
- Supports HDMI Active Optical Cables (AOC) with 5 VDC, 200mA power available to each output
- Advanced EDID® management
- Built-in equalizer to prevent signal attenuation in transmission
- Supports the Consumer Electronics Control (CEC) feature to turn displays on or off and to adjust their volume levels
- Upgradable firmware

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** or via email at **support@monoprice.com**. Check the website for support times and links.

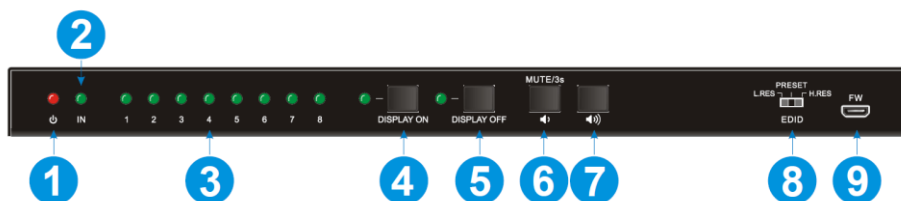
PACKAGE CONTENTS

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 4K Pro 1x8 HDMI® Splitter
- 1x AC Power Adapter (12 VDC, 1A)
- 2x Mounting Ears
- 4x Mounting Screws
- 4x Plastic Feet
- 1x User's Manual

PRODUCT OVERVIEW

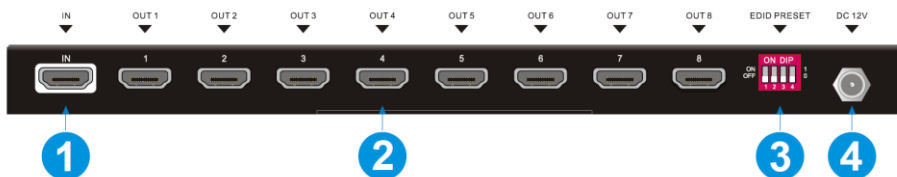
Front Panel



1. **POWER:** The LED illuminates red when power is applied.
2. **IN:** The LED illuminates green when there is an active HDMI® input signal.
3. **1~8:** The LEDs illuminate green when there is an output on the corresponding channel.
4. **DISPLAY ON:** Press the button to turn on the connected displays. The LED blinks green when the signal is sent. Note that the connected displays must support the CEC feature to be controlled by the splitter.

5. **DISPLAY OFF:** Press the button to turn off the connected displays. The LED blinks green when the signal is sent. Note that the connected displays must support the CEC feature to be controlled by the splitter.
6. **VOL-/MUTE/3s:** Momentarily press the button to decrease the volume level of the connected displays. Press and hold the button for 3 seconds to toggle audio mute on or off on the connected displays. Note that the connected displays must support the CEC feature to be controlled by the splitter.
7. **VOL+:** Momentarily press the button to increase the volume level of the connected displays. Note that the connected displays must support the CEC feature to be controlled by the splitter.
8. **EDID:** Three position slider switch to select the method by which the video source device obtains EDID® data. When in the **L.RES** position, the system reads the EDID data for all connected displays and selects the one with the lowest resolution. When in the **PRESET** position, the system sends the EDID preset setting selected with the **EDID PRESET DIP** switches on the rear panel. When in the **H.RES** position, the system reads the EDID data for all connected displays and selects the one with the highest resolution.
9. **FW:** Micro USB port for performing a firmware upgrade. Refer to the *FIRMWARE UPGRADE* section below for update instructions.

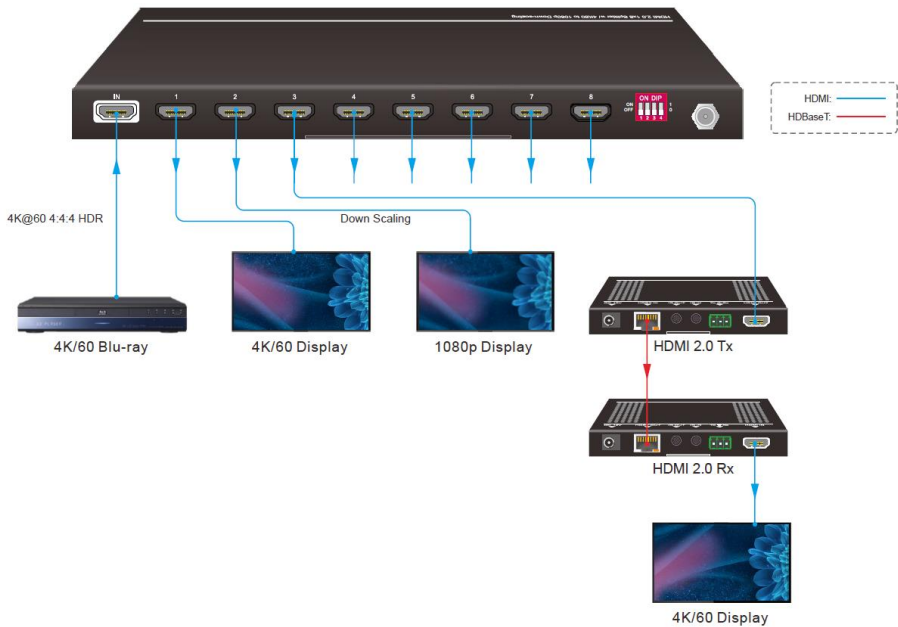
Rear Panel



1. **IN:** HDMI® port for connecting the video source device.

2. **OUT 1~8:** Eight HDMI® ports for connecting the displays.
3. **EDID PRESET:** 4-pin DIP switch for setting the **EDID PRESET** data that is used when the **EDID** switch on the front panel is set to the **PRESET** position. Refer to the *EDID MANAGEMENT* section for details.
4. **DC 12V:** DC barrel connector for connecting the included AC power adapter.

SAMPLE CONNECTION DIAGRAM



VIDEO DOWNSCALING

The system supports automatic downscaling of the 4K input signal when connected to one or more 1080p displays. The following table shows the input and output resolutions, refresh rates, and color spaces.

Input			Output		
Resolution	Refresh	Color Space	Resolution	Refresh	Color Space
4K	60Hz	4:4:4	1080p	60Hz	4:4:4
4K	30Hz	4:4:4	1080p	30Hz	4:4:4
4K	24Hz	4:4:4	1080p	24Hz	4:4:4
4K	60Hz	4:2:0	1080p	60Hz	4:4:4
4K	30Hz	4:2:0	1080p	30Hz	4:4:4
4K	24Hz	4:2:0	1080p	24Hz	4:4:4
4K	60Hz	4:2:2	Not supported		
4K	30Hz	4:2:2	Not supported		
4K	24Hz	4:2:2	Not supported		

EDID MANAGEMENT

The system has 15 EDID® presets built-in. The following table shows the details for each preset. Note that EDID preset 10 is the system default.

Preset	Switches	EDID Settings
1	0000	Get the EDID data from the display connected to OUT 1
2	0001	Get the EDID data from the display connected to OUT 2
3	0010	Get the EDID data from the display connected to OUT 3
4	0011	Get the EDID data from the display connected to OUT 4
5	0100	Get the EDID data from the display connected to OUT 5
6	0101	Get the EDID data from the display connected to OUT 6
7	0110	Get the EDID data from the display connected to OUT 7
8	0111	Get the EDID data from the display connected to OUT 8
9	1000	720p video with LPCM audio
10	1001	1080p video with LPCM audio
11	1010	1080p video with DTS® or Dolby® audio
12	1011	4K@30Hz video with LPCM audio
13	1100	4K@30Hz video with DTS or Dolby audio
14	1101	4K@60Hz video with LPCM audio
15	1110	4K@60Hz video with DTS or Dolby audio
16	1111	Not used

FIRMWARE UPGRADE

The firmware in this switch can be upgraded. If an upgraded firmware is available, it can be downloaded from the **43962** page on the **www.monoprice.com** website or from the Downloads section.

1. Download the firmware upgrade zip file and extract the firmware file (.bin).
2. Using a micro USB cable (available separately), plug one end into the **FW** port on the switch, then plug the other end into an available USB port on your computer.
3. Power on the switch. Your computer will automatically detect a U-disk named **BOOTDISK**.
4. Double-click the U-disk to open it and view the contents. There should be a file named **READY.TXT**.
5. Copy the firmware upgrade file to the U-disk.
6. Double-click the U-disk again to check the contents. The **READY.TXT** file should have been replaced with a **SUCCESS.TXT** file. If not, double check the filename and try the above steps again.
7. Once the update is successful, remove the micro USB cable, then reboot the switch by unplugging it from the wall, waiting 30 seconds, then plugging it back in.

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 the **P/N** into the search bar. If available, support files are linked at the bottom of the product page.

SPECIFICATIONS

P/N	43962
Video Inputs	1x HDMI®
Video Outputs	8x HDMI
Maximum Video Resolution	4K@60Hz with YCbCr 4:4:4, 8-bit
Active Optical Cable Support	5 VDC, 200mA power on each output
HDMI Version	2.0
HDCP™ Version	2.2, backwards compatible with 1.4
Video Bandwidth	up to 18Gbps
Input Power	12 VDC, 1A
AC Adapter Input Power	100 ~ 240 VAC, 50/60 Hz
Maximum Power Consumption	7 watts
Operating Temperature	+23 ~ +131°F (-5 ~ +55°C)
Storage Temperature	-13 ~ +158°F (-25 ~ +70°C)
Operating Humidity	10 ~ 90% RH, noncondensing
Dimensions (WxHxD)	10.2" x 0.8" x 2.8" (260 x 20 x 70 mm)
Weight	1.1 lbs. (500 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-003.0

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

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