

Binary™ 4K HDR HDMI Splitter | 1x2
B-260-444-HDR-SP12SA

BINARY

INSTALLATION MANUAL



FC CE

IMPORTANT SAFETY INSTRUCTIONS

To reduce the risk of fire or electric shock, read and follow all instructions and warnings in this manual. Keep this manual for future reference.

1. Do not expose this apparatus to rain or moisture. Do not expose this equipment to dripping or splashing, and ensure that no objects filled with liquids, such as vases, are placed on the equipment. Do not use this apparatus near water.
2. Do not remove cover. No user serviceable parts inside.
3. Clean only with a dry cloth.
4. Do not block any ventilation openings. Install according to manufacturer's instructions.
5. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
6. Do not override the safety purpose of the polarized or grounding plug. A polarized plug has two blades, one of which is wider than the other. A grounding plug has two matching blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
7. Protect the power cord from being walked on or pinched, particularly at the plug end and where the power cord is attached to the apparatus.
8. Only use attachments and accessories specified by the manufacturer.
9. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power supply cord or plug is damaged, liquid has been spilled on or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, the apparatus does not operate normally, or it has been dropped.
10. To completely disconnect this equipment from power, disconnect the power supply cord from the power outlet.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



CAUTION



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK.

DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

1. PRODUCT OVERVIEW

Welcome to Binary™. This product is engineered to provide years of exceptional reliability. We appreciate your business, and we stand committed to providing our customers with the highest degree of quality and service in the industry.

This unit is HDCP 2.2 compatible and supports all HDMI 2.0b defined audio and video formats including 4K@ 60Hz 4:4:4 and HDR formats. The Binary 260 series 1×2 splitter features full 18Gbps content support and independent control of the audio and video portions of the EDID for ultimate in troubleshooting and reliability. The product features a built in 4K to 1080p downscaler for systems where 4K content is simultaneously required on 4K and 1080p displays, eliminating the need to limit the source to work on all TVs, while optical audio breakout provides a simple way to route audio where needed.

2. FEATURES

- Duplicates a single HDMI input signal to two HDMI outputs
- Supports HDMI 2.0b and is HDCP 2.2 compatible
- Full 18Gbps bandwidth support for 4K@60Hz 4:4:4 and all HDR formats including Dolby Vision @60Hz and HDR10
- 4K to 1080p downscaler on Output #2
- Audio and Video EDID control
- Optical Audio Breakout

3. PACKAGE CONTENTS

- 1x B-260-444-HDR-SP12SA
- 1x 12V DC power adapter
- 4x Rubber Feet
- 1x Installation Manual
- 2x L-Brackets
- 4x Bracket Screws

4. DEVICE LAYOUT

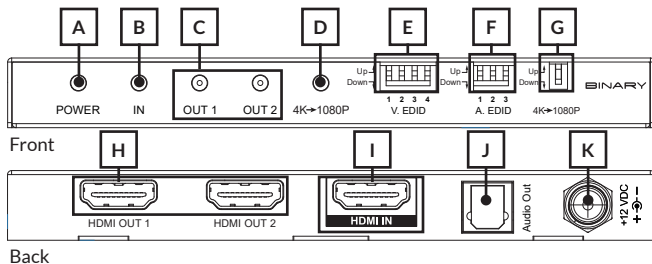


FIGURE 1: Device Annotations

A. Power LED

Indicates that device is receiving power

B. Input LED

Indicates signal transfer over the input port

C. LEDs for Outputs 1 and 2

Indicates signal transfer over output ports

D. Downscale LED

Indicates signal downsizing from 4k to 1080p

E. Video. EDID Dip Switches

Control Video EDID with Auto, Copy as well as specific video formats. See Section 7
If the dip switches are in different positions, the source device handshakes the custom EDID in the splitter

F. Audio. EDID Dip Switches

Control Audio EDID with Auto, Copy as well as specific audio formats. See Section 7
If the dip switches are in different positions, the source device handshakes the custom Audio EDID in the splitter

G. Downscale DIP Switch

Up for 4K, Down for 1080p

H. HDMI Outputs 1 and 2

Connect HDMI cables to local display

I. HDMI Input

Connect HDMI cable from source

J. Optical Audio OUT

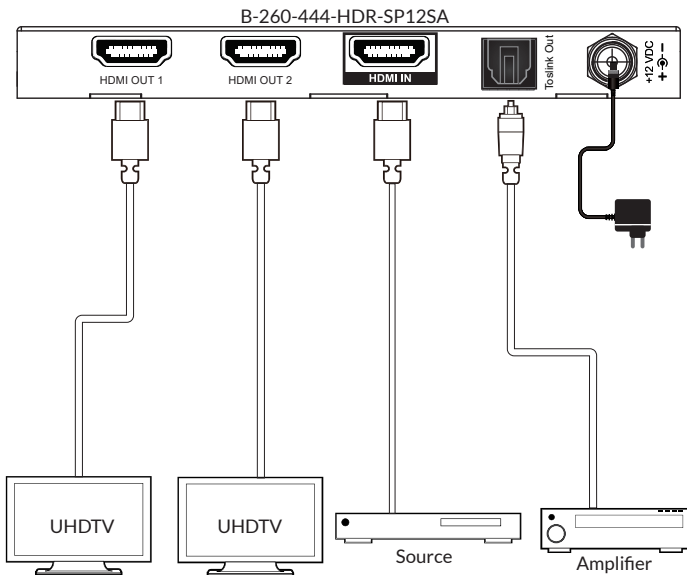
Connect an optical audio cable to extract/breakout audio from the HDMI IN port content. This extracts compressed multi-channel and stereo audio but does not downmix from multi-channel to 2-channel audio for audio from the HDMI IN port

K. Locking Power Supply (+12V DC)

Connect the included 12V power supply to this port

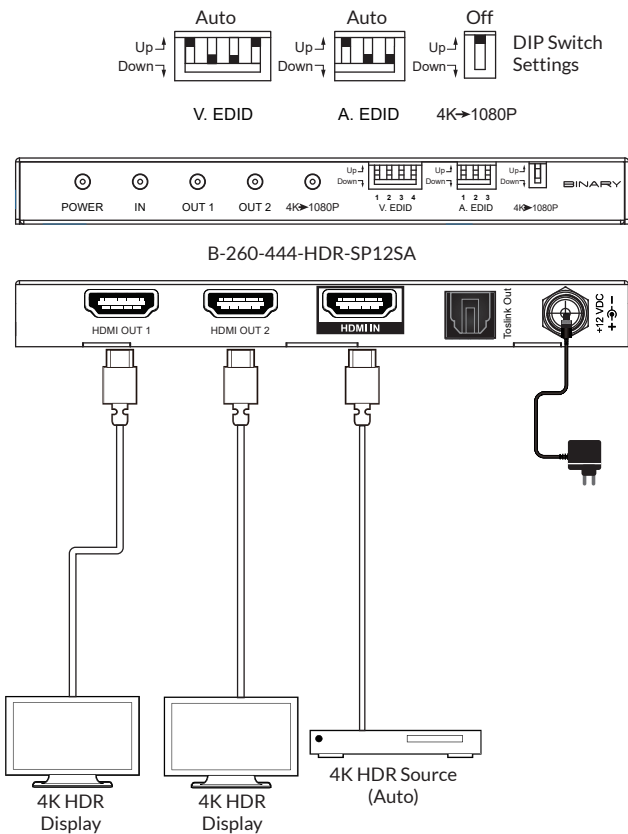
5. INSTALLATION AND CONNECTIONS

1. Connect an HDMI cable from a source to the B-260-444-HDR-SP12SA to HDMI IN.
2. Connect an HDMI cable from each HDMI OUT to the HDMI IN on a TV, projector or other AV device.
3. If applicable, connect the Optical Audio Out to an Amplifier, A/V receiver or other audio device.
4. Set DIP switches based on the application requirements.
5. Apply power to the unit by connecting the provided 12 V DC power supply.
6. Turn on sources, TVs and other devices in the system.

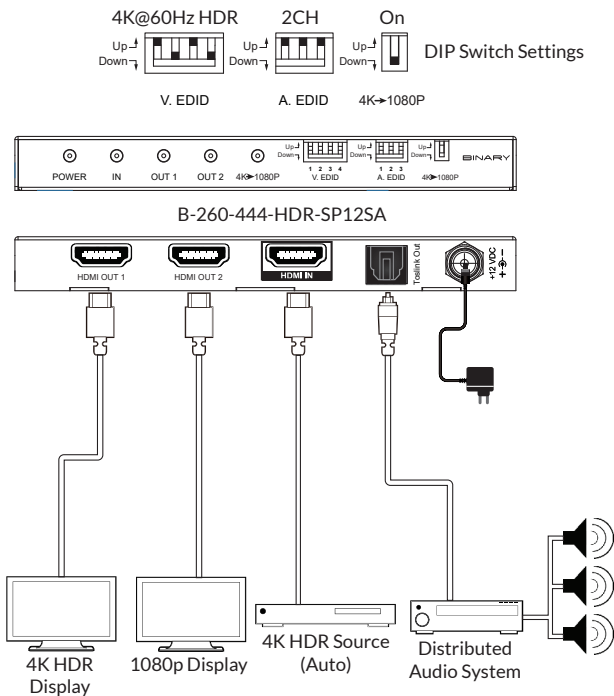


6. APPLICATIONS

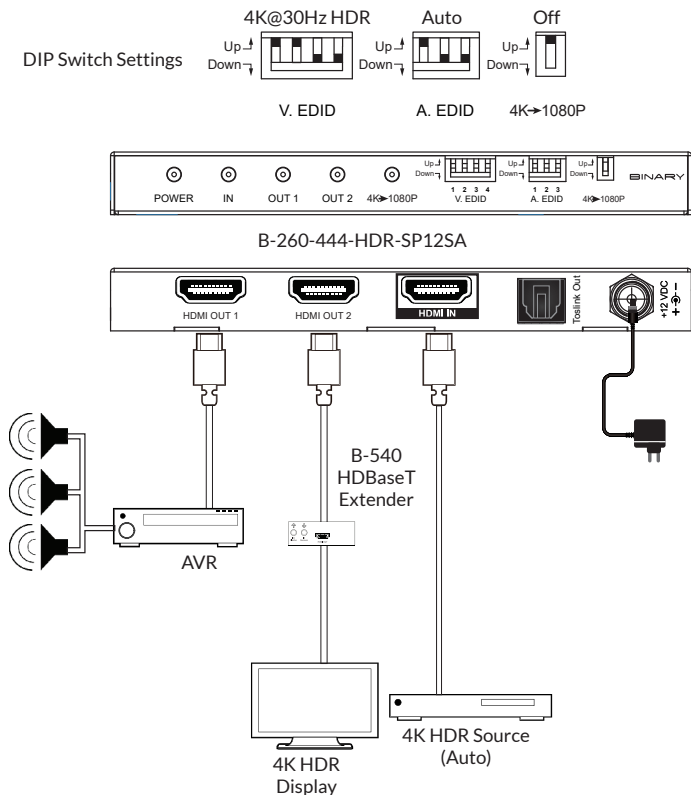
6.1. Basic Splitter



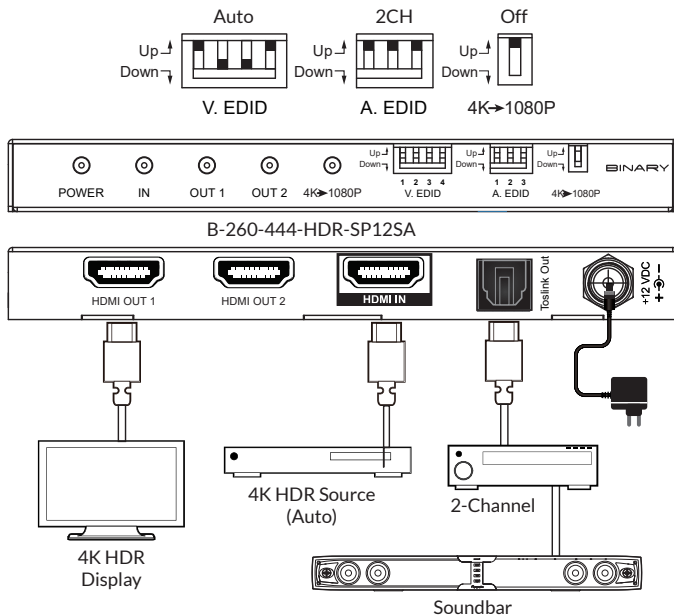
6.2. 1080p Downscaling with Distributed Audio



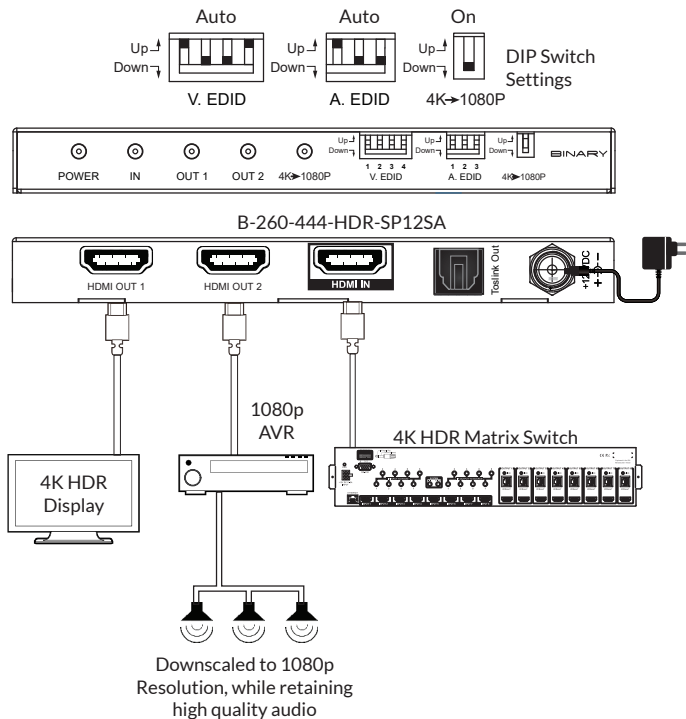
6.3. Limit Video Bandwidth to support Legacy HDBaseT Extenders



6.4. Audio Extractor



6.5. Legacy AV Receivers



7. DIP SWITCH SETTINGS

7.1. Video EDID

Video EDID					
EDID Copy (Output 1)		1	2	3	4
	Up				
	Down	•	•	•	•
1080p SDR		1	2	3	4
	Up	•	•	•	•
	Down				
1080p HDR		1	2	3	4
	Up	•	•	•	
	Down				•
4K@30Hz SDR		1	2	3	4
	Up	•	•		•
	Down			•	
4K@30Hz HDR		1	2	3	4
	Up	•	•		
	Down			•	•
4K@60Hz 4:2:0 SDR		1	2	3	4
	Up	•		•	•
	Down		•		
4K@60Hz HDR		1	2	3	4
	Up	•		•	
	Down		•		•
Auto		1	2	3	4
	Up	•			•
	Down		•	•	

7.2. Audio EDID

Audio EDID				
EDID Copy (Output 1)		1	2	3
	Up			
	Down	•	•	•
2CH (PCM)		1	2	3
	Up	•	•	•
	Down			
6CH		1	2	3
	Up	•	•	
	Down			•
8CH		1	2	3
	Up	•		•
	Down		•	
Passthrough		1	2	3
	Up	•		
	Down		•	•

7.3. Scaler

Video Scaler		
Scaler Off		1
	Up	•
	Down	
HDMI Output #2 scaled to 1080p ON		1
	Up	
	Down	•

8. SPECIFICATIONS

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Maximum Bandwidth	18 Gbps
HDR Support	HDR10, Dolby Vision 60 Hz
Video Resolution	(up to 4:4:4) 4096×2160@24/25/30/50/60Hz 3840×2160@24/25/30/50/60Hz, 2048x1080p, 1080p@23.98/24/25/29.97/30/50/59.94/60Hz, 1080i@50/59.94/60Hz, 720p@50/59.94/60Hz, 576p, 576i, 480p, 480i
HDMI Audio Formats	PCM 2CH, LPCM 7.1/5.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos and DTS:X
Audio Sampling Rate	32KHz, 44.1KHz, 48KHz, 88.2KHz, 96KHz, 176.4KHz, 192KHz
Optical Audio Formats	PCM 2 CH, Dolby Digital, Dolby Digital+, DTS 5.1
Bit Rate	Up to 24Hz
ESD Protection	Human body model: ±15kV (air-gap discharge) & ±8kV (contact discharge)
Connections	
HDMI IN/OUT Distance	4K to 5m (15ft) 1080p to 10m (30 ft)
Input Ports	1×HDMI TypeA (19-pin female)
Output Ports	2×HDMI Type A (19-pin female)
Controls	
V. EDID DIP switch	Sets max Video portion EDID accepted by splitter
A. EDID DIP switch	Sets max Audio portion of EDID accepted by the splitter
Downscaler (4K to 1080p) DIP switch	Downscales Output #2 to 1080p if 4K HDMI content is input into splitter

Mechanical	
Housing	Metal enclosure
Dimensions	5.03" L x 2.625" W x 0.563" H
Weight	0.55 lbs. (0.25kg)
Power Supply	Locking 12V DC, 2A
Power Consumption	5W (max)
Operation Temperature	32–104°F
Storage Temperature	-4–140°F
Relative Humidity	20–90% RH (no condensation)
Certifications and Compliance	Product: CE, FCC
	Power Supply: CE, FCC, UL

9. WARRANTY

This Binary product has a 2-Year limited warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products that have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to SnapAV or a designated service center with prior notification and an assigned return authorization number (RA).

10. SUPPORT

866.838.5052

www.snapav.com

BINARY

Rev: 181120-1720

© 2018 Binary