

4K HDR Switch with IR - 4x1
B-260-SWITCH-4X1

BINARY

INSTALLATION MANUAL



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.



FCC WARNINGS

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

TRADEMARKS

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1. PRODUCT OVERVIEW

Thank you for purchasing this product. For proper installation and optimum performance, please read the instructions in this manual.

B-260-SWTCH-4x1 Switch features HDMI 2.0 and HDCP 2.2 compatibility and supports resolutions up to 4K@60Hz 4:4:4 8bit, enabling four Ultra HD sources to be switched to one Ultra HD or non-Ultra HD display. The switch can be controlled manually by a front panel button, IR remote** and/or serially by RS-232.

2. FEATURES

- 4 to 1 HDMI switch
- HDMI 2.0 with 4K@60 4:4:4 8-bit and HDCP 2.2 compliant
- Supports manual switching
- Supports various control options
- Compact size and easy-to-install

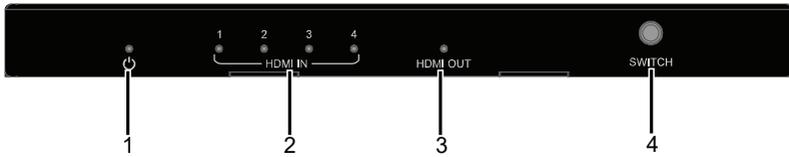
3. PACKAGE CONTENTS

- 1 x B-260-SWTCH-4x1 Switch
- 1 x DC 12V Power Adapter
- 1 x Switch IR Remote (Requires IR receiver, sold separately)
- 1 x Phoenix Male Connector (3.5mm, 3 Pins)
- 2 x Mounting Ears (with Screws)
- 2 x Drywall Screws
- 4 x Rubber Feet
- 1 x Installation Manual

**IR control requires connection to an external control system via an IR extension cable, or use of an external IR receiver which are sold separately. You can view compatible devices at <https://www.snapav.com/shop/en/snapav/search/infrared>

4. DEVICE LAYOUT

4.1. B-260-SWTCH-4x1 Front Panel



1. POWER LED

On: The device is powered on.

Off: The device is powered off.

2. HDMI IN 1-4 LED

On: The HDMI IN source is selected and active.

Off: The HDMI source is not selected nor active.

3. HDMI OUT LED

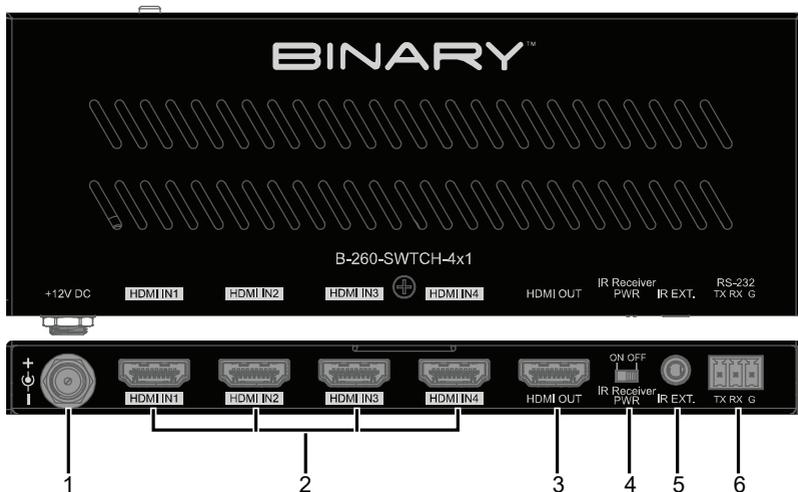
On: An HDMI display is connected to the switch.

Off: No HDMI display is not connected to the switch.

4. SWITCH Button

Press to cycle through the active sources, inactive sources will not be selectable.

4.2. B-260-SWTC-4x1 Rear Panel



1. +12V DC

Connect the provided 12Vdc power supply's cord and tighten it in place.

2. HDMI IN (1-4)

Connect to the output of HDMI source(s) to the input(s) you require.

3. HDMI OUT

Connect to the input of a HDMI display or other similar device.

4. IR Receiver PWR

On: IR receiver port supplies 12V power.

Off: IR receiver port does not supply 12V power.

Note:

- The unit can be controlled through an IR receiver (sold separately) in the ON position.
- The unit can be controlled with a standard mono cable from a control system in the OFF position.

5. IR EXT.

IR extension port. Connect an IR extension cable, control cable or external IR receiver (**not included**).

When connecting to an unpowered IR receiver or a control device, ensure that the **IR Receiver Power Switch** is in the **OFF** position.

When connecting to a powered IR receiver, ensure that the **IR Receiver Power Switch** is in the **ON** position.

6. RS-232

Connect to a 3rd party RS232 control device for RS232 Control.

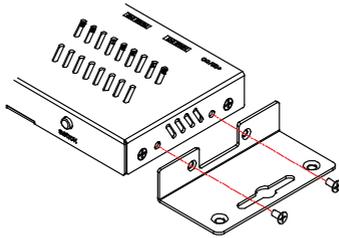
5. INSTALLATION & WIRING

5.1. Installation

The B-260-SWTCB-4x1 can be placed on a solid and stable surface, installed on a standard equipment rack shelf, or mounted to a wall or distribution box. When installed on a rack shelf, wall, or distribution box we strongly recommend that the included mounting ears be used to secure the device. When installing on a solid surface the use of the mounting ears is optional.

Steps to install the switch using the supplied mounting ears:

1. Attach one of the mounting ears to the enclosure using the screws provided in the package.
2. The mounting ear is attached to the enclosure as shown below.



3. Repeat steps 1-2 for the other side of the switch.
4. Mount the switch on a solid surface, rack shelf, wall, or distribution box with the included mounting screws by screwing the mounting ears to the surface you are mounting to.

5.2. Wiring



Warning: Before beginning any wiring be sure to disconnect the power from all devices in the system..

Steps for device wiring:

1. Connect HDMI IN

Connect the HDMI sources (such as PC, Blu-ray player, Apple TV, 4K media player, etc) to the HDMI IN 1-4. Ensure you are using a high-quality HDMI cable capable of supplying the maximum resolution you require. .

2. Connect HDMI OUT

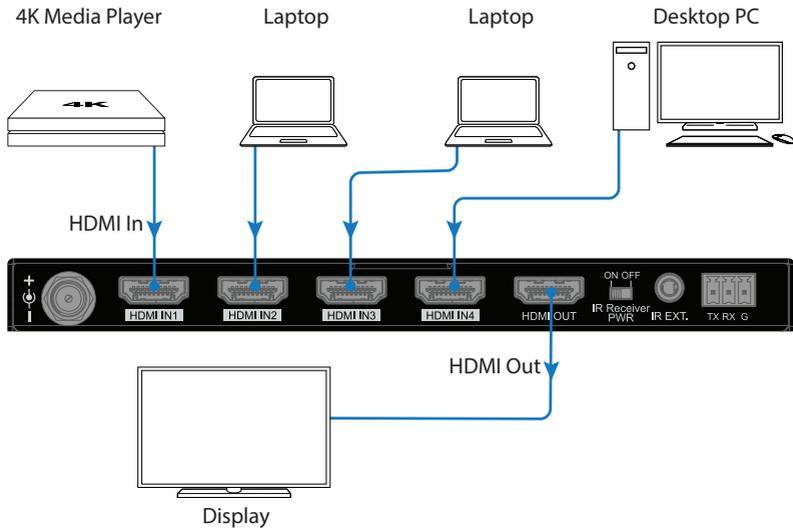
Connect the HDMI display device (such as a TV, projector, LED/LCD display or other display device) to the HDMI OUT. Ensure you are using a high-quality HDMI cable capable of supplying the maximum resolution you require.

3. Connect additional control options, as required:

- IR Control: Refer to IR Control Wiring section for more details on using IR to control the switcher.
- RS-232 Control: Refer to RS-232 Control Wiring section for more details on using RS-232 to control the switcher.

4. Connect the DC 12V power cord provided.

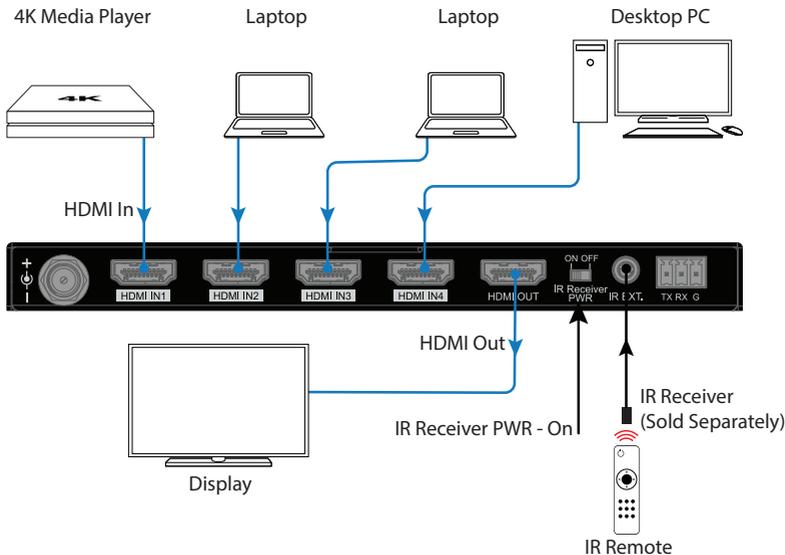
5. Power on all connected devices.



Application Diagram 1: Basic Wiring Diagram

5.3. IR CONTROL WIRING

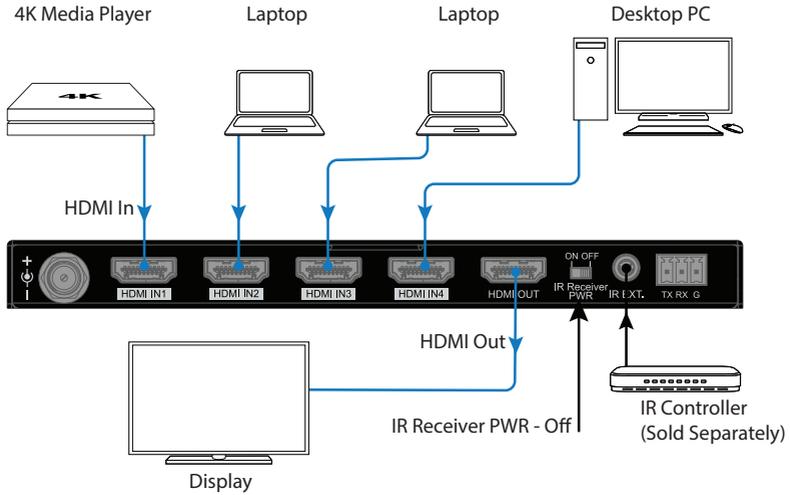
The following diagrams show the different connections and devices used to control the switcher via IR.



Application Diagram 2: IR Control via Handheld IR Remote and IR Receiver

NOTE: IR control requires connection to an external control system via an IR extension cable, or use of an external IR receiver **which are sold separately**.

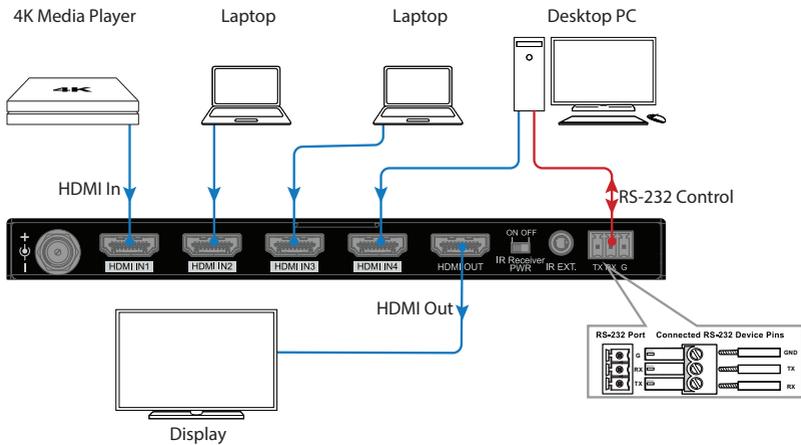
Please visit <https://www.snapav.com/shop/en/snapav/search/infrared> to find a suitable IR receiver.



Application Diagram 3: IR Control via 3rd Party Controller

5.4. RS-232 Control Wiring

The following diagram shows the connection used to control the switcher via RS-232.



Application Diagram 4: Control via RS-232

6. CONTROL OF THE SWITCH

The B-260-SWTCH-4x1 can be controlled through the SWITCH button on the front panel (other options for control are mentioned in section 5.2.3 and detailed out in section 5.3/5.4).

6.1. Front Panel Button Control

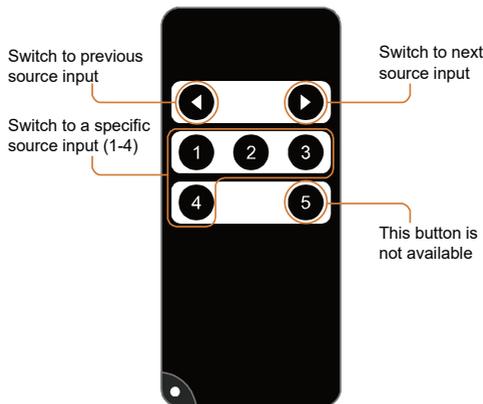


Press the switch button to cycle through multiple sources

6.2. IR Remote Control**

B-260-SWTCH-4x1 Switch can be controlled via IR using the provided IR Remote or an IR Control system. In order to use the included IR Remote an IR receiver will need to be purchased separately. Visit <https://www.snapav.com/shop/en/snapav/search/infrared> for available IR Receivers.

Additionally, 3rd party IR control system can also be used and will need to be purchased from a 3rd party vendor.



Buttons	IR Codes	Description
▶	0x02 0x0a	Switch to next active source input (Cycle 1-4).
◀	0x02 0x08	Switch to previous active source input (Cycle 1-4).
1	0x02 0x04	Switch to source input 1.
2	0x02 0x05	Switch to source input 2.
3	0x02 0x06	Switch to source input 3.
4	0x02 0x0c	Switch to source input 4.
5	N/A	Not available.

Note: Since the encoding format for IR codes above is NEC (38KHz), please ensure any third-party device used to IR control the switch supports NEC (38KHz).

6.3. RS-232 Control

Advanced users may also choose to control the device through RS232 CONTROL port. A UART cable is needed to connect a PC or control system to the device. The API command for RS232 control is available below. A professional RS232 serial interface software may be needed as well.

Before executing the API command, please ensure the RS232 interface and the control PC are configured correctly.

Parameters	Value
Baud Rate	9600 bps
Data Bits	8 bits
Parity	None
Stop Bits	1 bit
Follow Control	None

ID	FUNCTION	COMMAND	EXAMPLE
1	Switch Input for Output	Command: SET SWITCH in<CR><LF> Return: SWITCH in<CR><LF> Parameter: in = {IN1, IN2, IN3, IN4, NEXT, PREV} Description: NEXT: next input PREV: previous input	Command: SET SWITCH IN1<CR><LF> Return: SWITCH<CR><LF> Description: Switch input 1 for HDMI output.

Take Command SET SWITCH in<CR><LF> as an example:

- [SET SWITCH] denotes command key words, case insensitive.
- [in] denotes parameters, case insensitive; incorrect parameters number will not be recognized.
- <CR><LF> denotes a carriage return or a line feed; all commands must be ended up with a carriage return or a line feed.

7. SPECIFICATIONS

Technical	
Input/Output Port	4 x HDMI IN, 1 x HDMI OUT, 1 x IR EXT., 1 x RS-232 (Phoenix connector), 1 x DC 12V IN
Input/Output Signal Type	HDMI with 4K@60Hz YUV 4:4:4, HDCP 2.2
Input/Output Resolution Supported	Up to 4096x2160@60Hz, include 4K@60Hz/4K@30Hz/1080P/1080i/720P
Audio Format	HDMI IN/OUT: Fully supports audio formats in HDMI 2.0 specification, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X
Maximum Data Rate	HDMI IN & HDMI OUT: 18Gbps
Control Method	IR, RS-232, CEC, DIP Switches

General	
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±15kV (Air-gap discharge)
Power Supply	DC 12V 2A
Power Consumption (Max)	3.19W
Device Dimension (W x H x D)	175mm x 16mm x 66.2mm/ 6.89" x 0.63" x 2.61" (Without Mounting Ears)
Product Weight	0.25kg/0.55lb

8. WARRANTY

2-Year Limited 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).

9. SUPPORT

Need Help? Contact Tech Support!

If you need further clarification, please call tech support at **800.838.5052**, or email **support@snapav.com**. For other information, instructional videos, support documentation, or ideas, visit our website and view your item's product page at **www.snapav.com**.

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