BINARY

INSTALLATION
MANUAL

FC CE

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 our 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 y 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.

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 xpressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CONTENTS

1. PRODUCT OVERVIEW

B-260-HDMI-CTRL is an HDMI In-line Controller, with resolutions up to 4K@60Hz (chroma sub-sampling 4:4:4 8-bit only) and HDCP 2.2.

Its digital or analog audio outputs allow audio to be de-embedded from HDMI input and sent to audio distribution system, such as Amplifie. Its rotary EDID switch has 15 EDID presets and can help negotiate the HDMI handshake in certain situations, such as an old HDMI display with DDC channel invalid, or DVI display with audio amplified requirement

By auto-detecting input signal status, it could automatically trigger CEC commands to turn on or off CEC-enabled TV, pre-loaded RS232 commands to power on or standby projector, and relay control to turn on or off projection screen.

2. KEY FEATURES

- Supports video resolutions up to 4K@60Hz 4:4:4 8-bit and HDCP 2.2.
- HDMI audio de-embedded out with Digital Coaxial and Analog Stereo.
- Rotary switch for EDID Management with 15 EDID presets.
- Built-in CEC controller from HDMI out.
- Built-in RS232 controller, to pre-load and store RS232 command of display device.

3. KEY BENEFITS

- Automatic CEC/RS232 commands to power on/standby display device by detecting input signal status.
- Built-in RELAY control to automatically turn on/off projector screen by detecting input signal status.
- Automatic input cable equalization and signal regeneration compensation.

4. PACKAGE CONTENT

- 1 x B-260-HDMI-CTRL
- 1 x DC 12V Power Adapter with US Pins
- 3 x Phoenix Male Connectors (3.5 mm, 3 Pins)
- 2 x Mounting Brackets (with Screws)
- 2 x Drywall Screws
- 4 x Rubber Feet
- 2 x Power Cord Labels
- 1 x Installation Manual

5.1.   B-260-HDMI-CTRL Front Panel
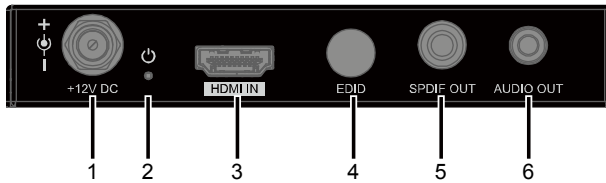
1. **DC 12V**

   Connect to the power adapter provided.

2. **POWER LED**

   On/Off: The device is powered on/off.

3. **HDMI IN**

   Connect to an HDMI source.

4. **EDID**

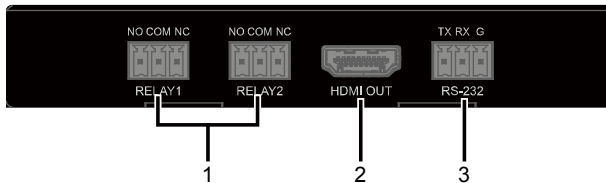   Switch for EDID Management with 15 EDID presets.

5. **S/PDIF OUT**

   RCA coaxial port for HDMI audio de-embedded output. Connect to an audio receiver for S/PDIF digital audio output.

6. **AUDIO OUT**

   3.5mm audio jack for HDMI audio de-embedded output. Connect to an audio receiver for stereo audio output.

5.2.   B-260-HDMI-CTRL Rear Panel

1. **RELAY1-2**

   Connect to the projector screen for Relay control (turn on or off the screen) when the change of input signal status is detected.

2. **HDMI Out**

   Connect to an HDMI display.

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3. **RS232**

   Pre-load and store RS232 commands for controlling display device.

6.1.   Installation

Note: Before installation, please ensure the device is disconnected from the power source.

Steps to install the device in a suitable location:

1. Attach the installation bracket to the device's enclosure using the screws provided in the package separately. The bracket is attached to the enclosure as shown.
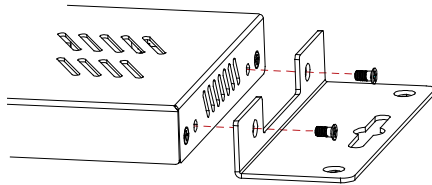
2. Repeat step 1 for the other side of the device.

3. Repeat step 1-2 for the receiver.

4. Attach the brackets to the surface you want to hold the unit against using the screws (provided by others).
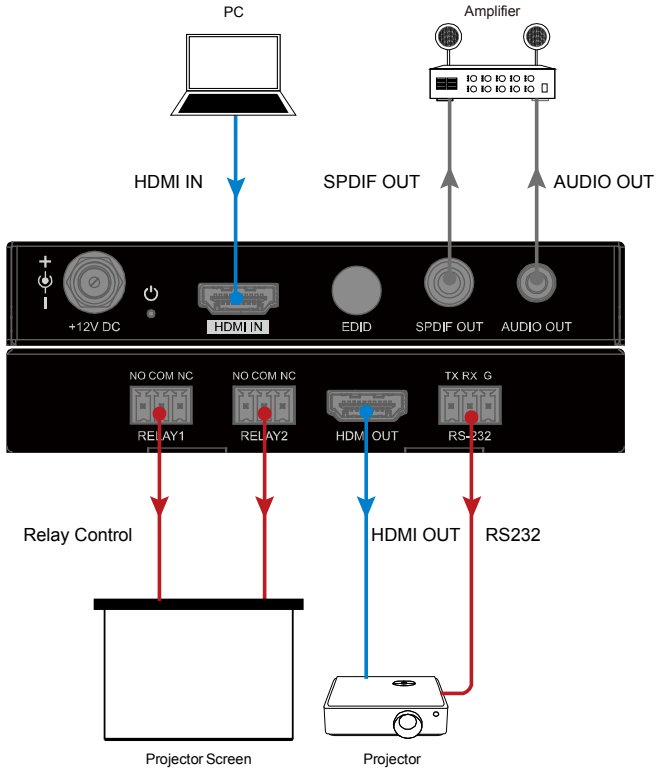
6.2.   Wiring

Warnings:

- Before wiring, disconnect the power from all devices.

- During wiring, connect and disconnect the cables gently

Steps for device wiring:

1. Connect an HDMI source (such as PC, Blu-ray, games console, satellite/cable TV, media server etc.) to HDMI IN port of this device.

2. Connect an HDMI display device (Such as projector) to the HDMI OUT port of this device.

3. Connect audio receivers to the S/PDIF OUT port and AUDIO OUT port of this device.

4. Connect projector to the RS232 port for pass-through the commands to control the projector.

5. Connect projection screen to the RELAY1 and RELAY2 ports to control the projection screen on/off.

6. Connect the power adapter provided. Power on all devices.

PC   Amplifier

HDMI IN   SPDIF OUT   AUDIO OUT

+12V DC   HDMI IN   EDID   SPDIF OUT   AUDIO OUT

NO COM NC   NO COM NC   TX RX G

RELAY1   RELAY2   HDMI OUT   RS-232

Relay Control   HDMI OUT   RS232

Projector Screen   Projector

7. EDID MANAGEMENT

EDID (Extended Display Identification Data) is a data structure pr vided by a digital display to describe its capabilities to a video source. This device features multiple EDID presets which can be performed using the EDID rotary switch on rear panel.

By default, the EDID switch is set in position 0. Should any compatibility issues occur, please set EDID using the following table.

Position	Description
0 **(default)**	Copy EDID from HDMI OUT
1	Set 3840x2160@60Hz 2CH as input EDID
2	Set 3840x2160@30Hz 2CH as input EDID
3	Set 1920x1080@60Hz 2CH as input EDID
4	Set 1280x720@60Hz 2CH as input EDID
5	Set 1920x1200@60Hz 2CH as input EDID
6	Set 1680x1050@60Hz 2CH as input EDID
7	Set 1600x1200@60Hz 2CH as input EDID
8	Set 1600x900@60Hz 2CH as input EDID
9	Set 1440x900@60Hz 2CH as input EDID
A	Set 1400x1050@60Hz 2CH as input EDID
B	Set 1360x768@60Hz 2CH as input EDID
C	Set 1280x1024@60Hz 2CH as input EDID
D	Set 1280x960@60Hz 2CH as input EDID
E	Set 1280x768@60Hz 2CH as input EDID
F	Set 1024x768@60Hz 2CH as input EDID

Note:

1. If EDID copy fails, 1920x1080@60Hz with stereo audio will be set as input EDID

2. You must reboot the device for EDID settings to take effect.

8.   RS232 CONTROL TOOL

RS232 port configu ation tool is one control tool running on PC to pro-load the RS232 commands for this device to control the display. Connect a PC to the device via a UART-to-USB cable, running the Uart port configu ation tool to set the connection parameters correctly before send the pro-loading commands to the device. The baud rate for the device is 57600.

Uart port configu ation pool menus are described below:

- **Baud rate:** Choose the correct baud rate according to the sink device, then click "Connect" to connect with the device.

   Note: This might be different from the setting of 57600 above and is determined by the sink device you are connecting to.

- **Power on:** Pre-load and store the command for "power on" to a sink device, then click "Send" to send and store it on the device.

- **Power off:** Pre-load and store the command for "power off" to a sink device, then click "Send" to send and store it on the device.

   Note: If the sink device requires hex commands, make sure the Hex box is checked.

- **Delay:** Set delay time (0~30minutes) the sink device will power off automatically after it cannot detect the input signal, then click "set" to take effect.

- **Set Terminator:** Select the command ending after each RS232 command that you are sending from this device to the sink device. Then click "Set" to take effect.

- **Set Relay Mode:** Set relay mode for the sink device.

   Latch – relay closes and latches when it is triggered;

   Momentary – only closes for a moment and then opens after it is triggered.

   Then click "Set" to take effect.
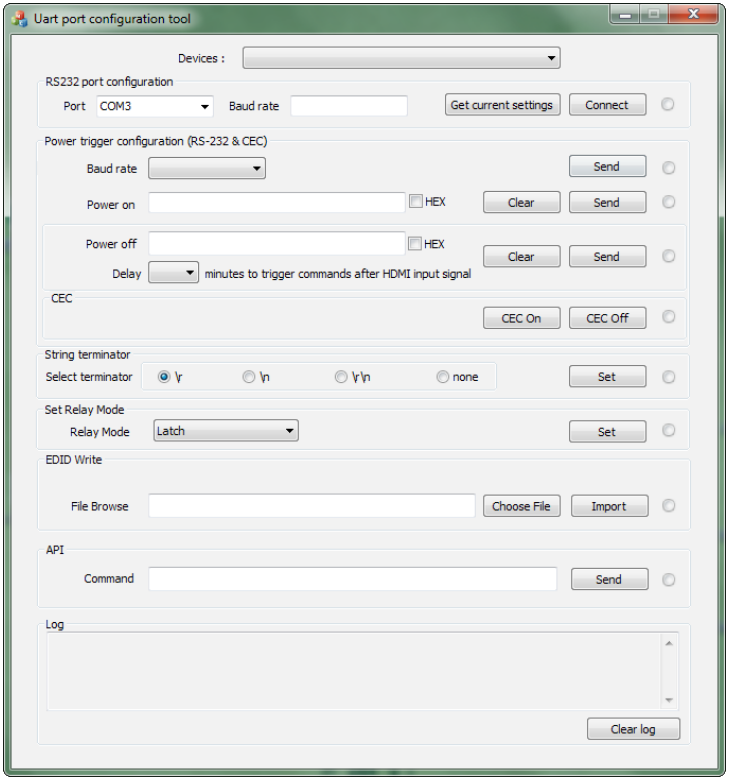
- **EDID Write:** Import EDID file to this d vice.

   Choose File – click to browse for the EDID file on our computer.

   Import – click to import the EDID file into this dvice.

   Note: After the new EDID file is imported to this dvice, please set the EDID switch to position "9" and reboot this device, then the input EDID of this device will be set to the new EDID instead of 1024x768@60Hz 2CH.

- **API:** Enter the API command in the "Command" textbox and then click "Send" to send command to this device.

   See below picture:

Uart port configuration tool

Devices :

RS232 port configuration

Port COM3 Baud rate [Get current settings] [Connect] ○

Power trigger configuration (RS-232 & CEC)

Baud rate [Send] ○

Power on ☐ HEX [Clear] [Send] ○

Power off ☐ HEX [Clear] [Send] ○

Delay minutes to trigger commands after HDMI input signal

CEC

[CEC On] [CEC Off] ○

String terminator

Select terminator ⊙ \r ○ \n ○ \r \n ○ none [Set] ○

Set Relay Mode

Relay Mode Latch [Set] ○

EDID Write

File Browse [Choose File] [Import] ○

API

Command [Send] ○

Log

[Clear log]

9. SPECIFICATIONS

Technical	
Input	1 x HDMI IN
Output	1 x HDMI OUT
Input/Output Signal Type	HDMI up to 4K@60Hz (4:4:4 8-bit), HDCP 2.2
Input/Output Resolution Supported	**VESA:** 800x600[8], 1024x768[8], 1280x768[8], 1280x800[8], 1280x960[8], 1280x1024[8], 1360x768[8],1366x768[8], 1440x900[8], 1600x900[8], 1600x1200[8], 1680x1050[8], 1920x1200[8] **SMPTE:** 720x480P[8], 720x576P[6], 1280x720P[6,8], 1920x1080I[6,8], 1920x1080P[2,3,5,6,8], 3840x2160P[2,3,5,6,8], 4096x2160P[2,3,5,6,8] 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz
Input Video Level	0.5-1.2 V p-p
Input DDC Signal	5V p-p
Maximum Pixel Clock	600MHz
Video Impedance	100 Ω
Maximum Data Rate	18Gbps

General	
Operating Temperature	-10℃ to 50℃/263°F to 323°F (Indoor) -20℃ to 60℃/253°F to 333°F (Outdoor)
Storage Temperature	-20℃ to 70℃ (-4°F to 158°F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±15kV (Air-gap discharge)
Power Supply	DC 12V 2A
Power Consumption (Max)	2 W
Device Dimension (W x H x D)	120mm x 20mm x 80.1mm / 4.72" x 0.79" x 3.15"
Product Weight	0.23kg/0.51lb

10. WARRANTY

Find details of the product's Limited Warranty and other safety, patent, and legal resources at **snapone.com/legal** or request a paper copy from Customer Service at **866.424.4489**

11. SUPPORT

For chat and telephone, visit **tech.control4.com/s/contactsupport**
● Email: **TechSupport@SnapOne.com** ● Visit **tech.control4.com for discussions,** instructional videos, news, and more.

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B-260-HDMI-CTRL-B