



HDMI 2.0 - HDCP 2.2 Corrector & Advanced EDID Manager w/WebOS Interface AKA "The Buffer"

ZIG-BF

USER MANUAL Ver. 1.0





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Before You Begin

Follow all instructions marked on the device during use. Do not attempt to maintain the device by yourself, any faults, please contact your vendor.

- Provide proper ventilation and air circulation and do not use near water.
- It is better to keep it in a dry environment.
- The system should be installed indoor only.
- Only use the power cord supplied with the device.
- Do not use liquid or aerosol cleaners to clean the device.
- Always unplug the power to the device before cleaning.
- Unplug the power cord during lightning or after a prolonged period of non-use to avoid damage to the equipment.

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Introduction

The ZIG-BF (Zigen Buffer) is a 4K60 4:4:4 600MHz 18Gbps capable device built for system integrators to solve the problem of HDCP compatibility as new 4K UHD content comes to market. By supporting the max bandwidth and data transfer rate of the HDMI2.0 standard and by providing a path for HDCP 2.2 content to play on ANY 4K UHD display the ZIG-BF will save you time, money and the headache of explaining why the TV you sold to your customer doesn't work.

The ZIG-BF is capable of connecting any HDCP revision source to any HDCP revision sink device. Additionally, this includes repeaters like AVRs and Matrix Switches that have both sink and source.

If you ever connected a UHD Satellite STB, Sony FMP-X10 UHD player or NVidia Shield UHD Netflix account and got the message: "this TV does not support HDCP 2.2. Make sure you have HDCP 2.2 capable TV" or a similar, make sure you never see it again with ZIG-BF!

Typical Applications:

- To enjoy 4K UHD movies on a 4K UHD display that you installed or purchased that doesn't have an HDCP 2.2 port - or has less than you need.
- High-end home theaters for showing UHD 2.0 content with HDCP 2.2 copy protection.
- You place the ZIG-BF in line between the source and the display in typical use - **you can also place it between the source and matrix switch or AVR - enabling high value content to be delivered to all zones in the system.**

Package Contents

- 1 x ZIG-BF
- 12 VDC Locking Power Supply
- 1 x 3' HDMI cable
- User Manual - check web site for latest

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Features

- 4K60 4:4:4 600MHz 18Gbps to 4K60 4:2:0 300 MHz 10.2Gbps conversion
- HDCP Management - anything in to anything out - lock on guaranteed! No more annoying messages about what your customer can and cannot watch.
- Advanced EDID Management - 15 preset tables, plus custom EDID tables.
- WebOS - simple connect, via any browser type in: <http://ZIG-BF> and get a full set of advanced features for your toughest systems.
- Digital Audio De-embedding from the HDMI signal

Specifications

Video Bandwidth

HDMI 18 GBP/sec

Video Resolutions

All SMPTE & VESA in HDMI 2.0 Specification. Max SMPTE UHD - 4096x2160P60/RGB/4:4:4

Color Space

RGB, YUV

Color Bit Depth

8-bit, 10-bit, 12-bit & 16-bit per pixel

Chroma Subsampling

4:4:4, 4:2:2, 4:2:0

Audio

HDMI in & Out – Up to Dolby TrueHD and DTS-HD Master
SPDIF – Up to Dolby Digital & DTS 5.1
Audio Sampling Rates – Up to 1536 KHz

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HDCP - 2.2, 1.4 or None

CEC - Pass through

Connections

1 x HDMI type A HDMI Input
1 x HDMI type A HDMI Output
1 x SPDIF Digital Audio Output
1 x RJ45 LAN Port for TCP/IP Control
1 x 12 VDC Locking Connector

Temperature – Operating 32-122 F (0-50 C), Humidity: 20-90% non-condensing.

Dimensions

4" x 3" x 1"

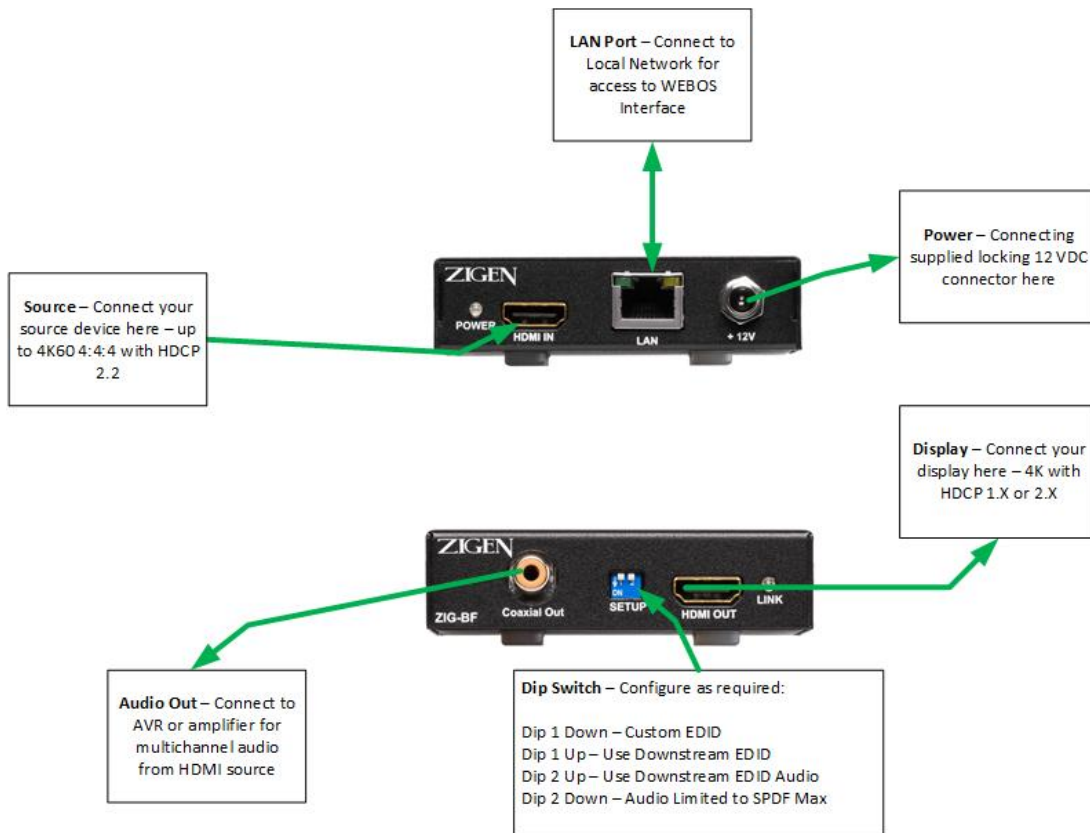
Weight

.25 pounds

Certifications/Compliance

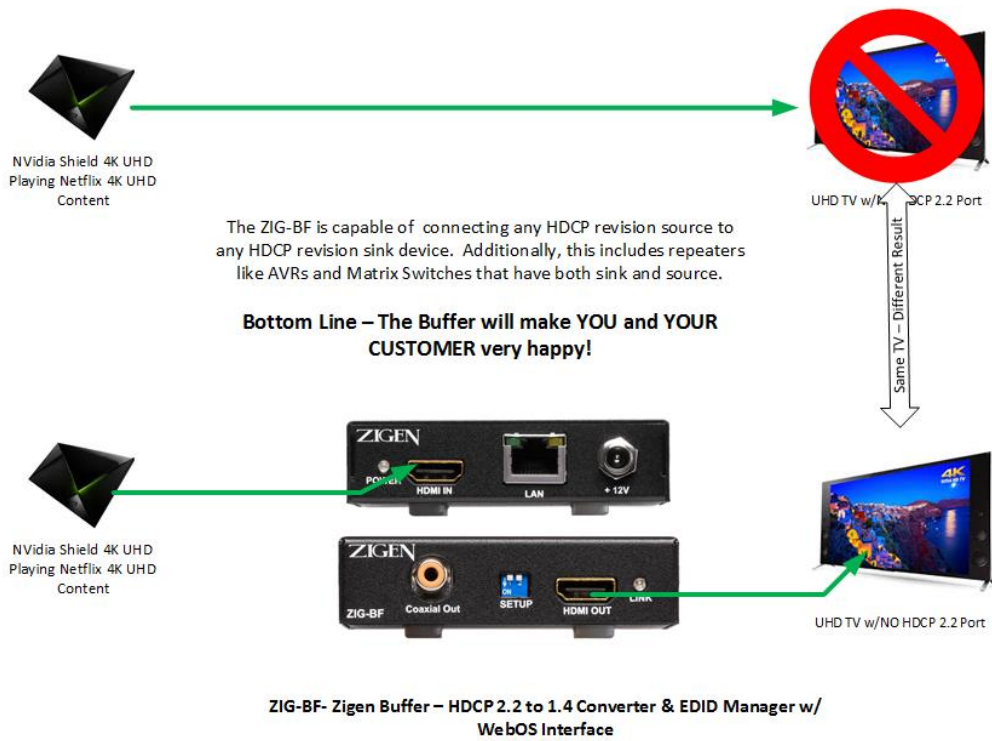
FCC, HDBaseT, CE, RoHS, HDCP, HDMI

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ZIG-BF Connections

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ZIG-BF Application Example

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The screenshot shows a web browser window with the address bar containing 'bf-0000'. The page title is 'ZIGEN ZIG-BF Control Panel'. The interface is divided into three main sections:

- Device Information:** Shows 'Device Name:bf-0000' and a 'Notes' text area with a 'Save Notes' button below it.
- EDID Management:** Includes a note 'For custom EDID tables, make sure DIP1 is ON (down)', 'Active EDID table:bf.edid', a 'New EDID table:' dropdown menu, and an 'Upload custom EDID file: (bf.edid)' section with 'Choose Files' (No file chosen) and 'Upload EDID' buttons.
- Admin:** Displays system information: 'Serial:123456780000', 'Firmware:1.0', 'Hardware:0001', and 'IP Address:192.168.1.148'. It also features a 'Hostname' field with 'bf-0000' and a 'Change Name' button, along with 'Factory Reset', 'Upload Firmware' (with 'Choose Files' and 'No file chosen'), 'Reset BF', and 'Install Update' buttons.

ZIG-BF WebOS Interface Screen

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WebOS Interface

1. How to access - from your PC or MAC browser enter the following:

PC - <http://bf-XXXX> (XXXX is the last 4 digits of the serial number)

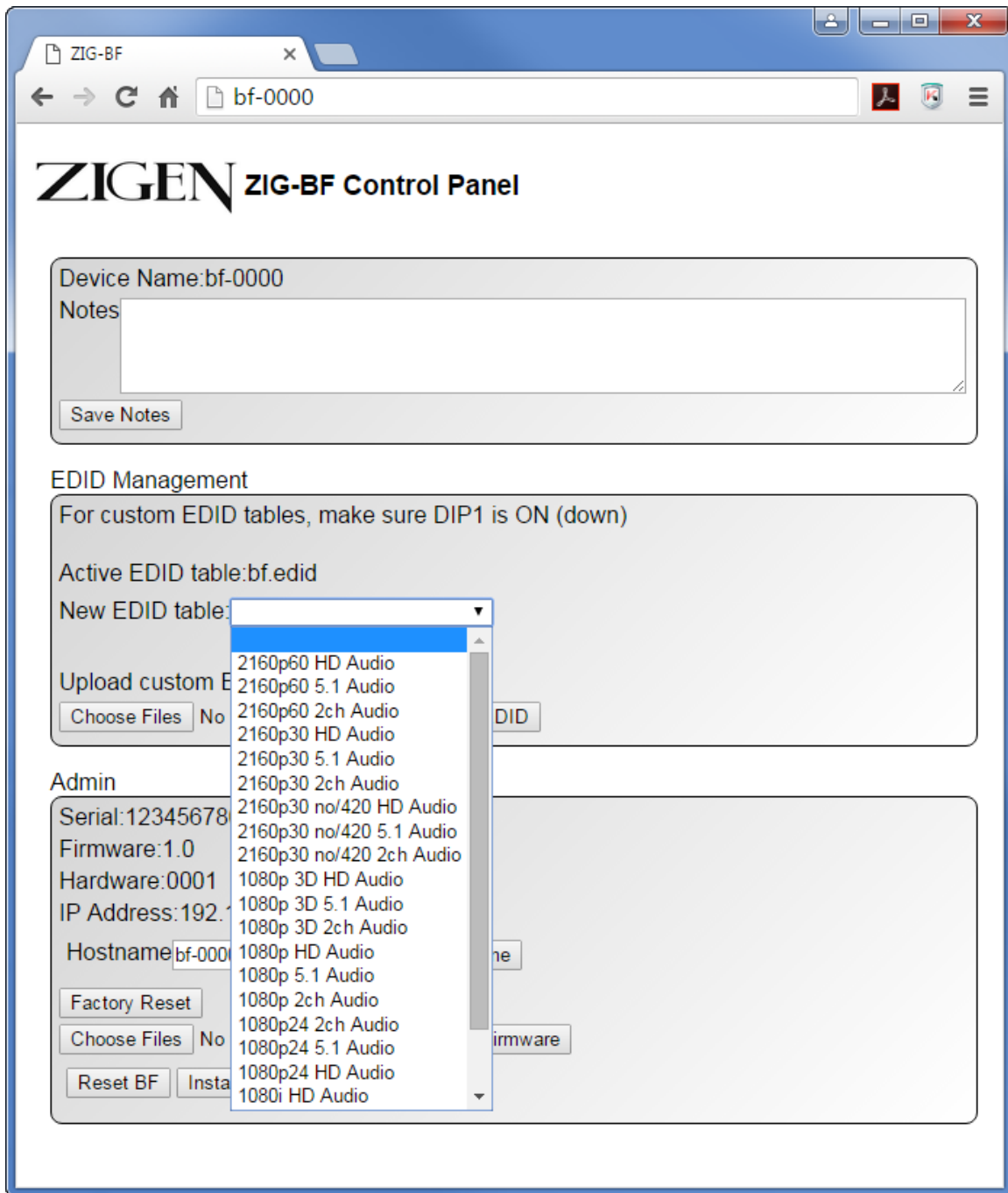
MAC - <http://bf-XXXX.local> (XXXX is last 4 digits of the serial number)

Note: PC or MAC must be connected to the same network as the ZIG-BF to access. The devices will also show up via Bonjour.

2. Once you get the screen above (ZIG-BF Control Panel) you can do the following:

- **Add Notes** in the notes field such as location of the device or other installer notes.
- **EDID Management** - with Dip Switch 1 ON you can select from the drop down list a custom EDIDs to suit your needs and better yet - get audio and video through the system!
- **Admin** - This is where you can rename the device, apply a factory reset or install new firmware.

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ZIG-BF WebOS with EDID Tables Shown

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Setting the Dip Switches



Dip1 is Down = EDID custom - this means you can change EDIDs from the WebOS discussed above.

Dip1 is UP = Downstream EDID - this means the buffer automatically uses the downstream EDID provided.

Dip2 is UP = Downstream Audio - this means the down EDID dictates the audio codec used.

Dip2 is Down = Audio limited to SPDIF max



Warranty Information

LIMITED WARRANTY – with the exceptions noted in the next paragraph, ZIGEN warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of one year from the date of purchase. The proof of sale is required in order to claim warranty. Should this product, in ZIGEN's opinion, prove defective within this warranty period, ZIGEN, at its option, will repair or replace this product without charge. Customers outside of US are responsible for shipping charges to and from ZIGEN. Any defective parts replaced become the property of ZIGEN. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended for. Items integrated into ZIGEN products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to ZIGEN.

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