BZB2GEAR®

Solutions to Amplify Your World ™

BG-STREAM-DE

HDMI/SDI Streaming Encoder/Decoder

User Manual

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Statement

Please read these instructions carefully before connecting, operating, or configuring this product. Please save this manual for future reference.

Safety Precaution

- To prevent damaging this product, avoid heavy pressure, strong vibration, or immersion during transportation, storage, and installation.

- The housing of this product is made of organic materials. Do not expose to any liquid, gas, or solids which may corrode the shell.

- Do not expose the product to rain or moisture.

- To prevent the risk of electric shock, do not open the case. Installation and maintenance should only be carried out by qualified technicians.

- Do not use the product beyond the specified temperature, humidity, or power supply specifications.

- This product does not contain parts that can be maintained or repaired by users. Damage caused by dismantling the product without authorization from BZBGEAR is not covered under the warranty policy.

- Installation and use of this product must strictly comply with local electrical safety standards.

Introduction

The BG-STREAM-DE provides a user-friendly experience with intuitive front-panel controls for recording, streaming, and source selection. It supports high-speed recording through its USB 3.0 interface, accommodating various input formats for flexibility. The rear panel features an RJ45 port for reliable internet connectivity and two USB 2.0 ports for peripherals like a keyboard and mouse, facilitating local control. The device meets diverse display and recording needs with a maximum resolution of 1080p at 60/50fps, advanced video features such as H.265/H.264/AVC encoding, and multiple output resolutions. Its audio capabilities include AAC input streams for high-quality sound.

The RJ45 port supports 10/100/1000Mbps Ethernet, and the device is compatible with streaming protocols such as NDI, Dante AV-H, RTSP, RTMP, and HLS, offering extensive streaming flexibility. Users can record in MP4, TS, and MOV formats and utilize various streaming formats. Control options include a USB keyboard and mouse or a comprehensive web UI for system configuration. Additionally, the device supports firmware upgrades and features LED indicators for easy monitoring, ensuring seamless operation in various streaming environments.

Features

- Versatile Connections: HDMI 2.0 & SDI inputs; HDMI 2.0 (PGM), HDMI & SDI (Loop-through) outputs
- Comprehensive Audio: 3.5mm analog input & output
- Recording & Streaming: 1080p60 (MP4, TS, MOV); supports NDI, Dante AV-H, RTSP, RTMP, HLS, SRT, TS
- Simple Network Configuration: DHCP Client support
- Control Options: Convenient control via USB keyboard/mouse and web UI
- Intuitive LED IndHardware compression in real-time mode
- Firmware upgradeable
- LED indicators for status monitoring
- Enhanced Functionality: USB 3.0 for storage

Packing List

- 1x BG-STREAM-DE
- 1x 12V DC Adapter

Specifications

Technical Specifications	
Max FPS	1920×1080p@60/50fps
Recording Modes	Hardware Compression, Real-Time Mode
Input Interfaces	Video ● 1×HDMI ● 1×SDI Audio ● 1×3.5 mm Phone Jack
Output Interfaces	Video ● 1×HDMI2.0 (PGM) ● 1×HDMI (Loop-through) ● 1×SDI (Loop-through) Audio ● 1×3.5 mm Phone Jack
Video Support	H.265/H.264/AVC, Baseline/Main/High Profile Support input / output resolutions ● 3840×2160p@60/50fps (Output only) ● 3840×2160p@30/25/24fps (Output only) ● 1920×1080p@60/50fps ● 1920×1080p@30/25/24fps ● 1920×1080i@60/50fps ● 1280×720p@60/50fps ● 1280×1024p@60fps ● 1280×960p@60fps ● 1024×768p@60fps ● 800×600p@60fps ● 640×480p@60fps ● 720×480p@60fps ● 720×576p@50fps ● 720×480i@60fps ● 720×576i@50fps
Audio Support	● Input Audio Stream: AAC
Network Features	● 1×RJ45 for 10/100/1000Mbps Ethernet ● DHCP Client
Streaming Protocols	● NDI Support (Separate License with NDI Required) ● Dante AV-H (Separate License with Dante AV-H Required) ● TS Over UDP (Unicast & Multicast) ● RTSP Over HTTP/TCP/UDP (RTSP Elementary Stream) ● RTMP (Publish) ● HLS
Recording Formats	● MP4 / TS / MOV
Additional Features	● Web UI for System Configuration ● Firmware Upgradable ● LED Indicator ● 1×USB 3.0 Host for USB Storage ● 2×USB 2.0 (For Keyboard and mouse usage)

Operation Controls and Functions

Front and Rear Panel

1. SDI In: Input for SDI Source
2. SDI Loop: Output for SDI Loop
3. HDMI In: Input for HDMI Source
4. HDMI Out: Output for HDMI Source
5. Line In: Input for Line Audio
6. Line Out: Output for Line Audio
7. HDMI Out (PGM): HDMI Program Output (Current Livestream Output)
8. USB 2.0: For Keyboard and Mouse Usage
9. DC In: 12V DC Power Input
10. Ethernet: Connects Unit to the Network for Streaming and Web GUI
11. Power Switch: Turns Unit On/Off
12. USB 3.0: Host for USB Storage
13. Record, Stream, Source Buttons: Selects Active Function
14. LED Indication Lights: Indicates Recording, Streaming, HDMI, and SDI Activity
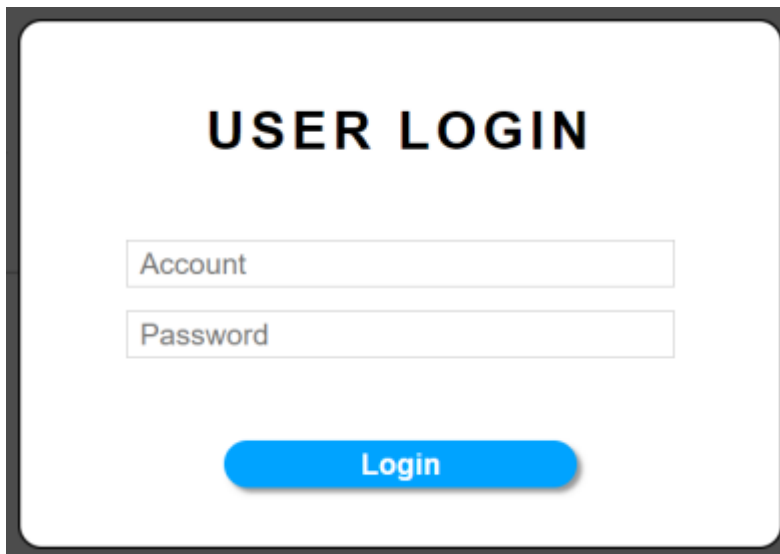
Web UI

To access the BG-STREAM-E Web UI, open an IP Finder tool and search for the device's IP address. Identify the correct IP address by matching it with the device's MAC address, then use it to open the control interface.

The Web UI is an intuitive interface that allows users to easily control the BG-STREAM-E from a standard PC or portable devices (e.g., Android, iPhone, iPad, etc.), providing a more convenient and flexible control experience.
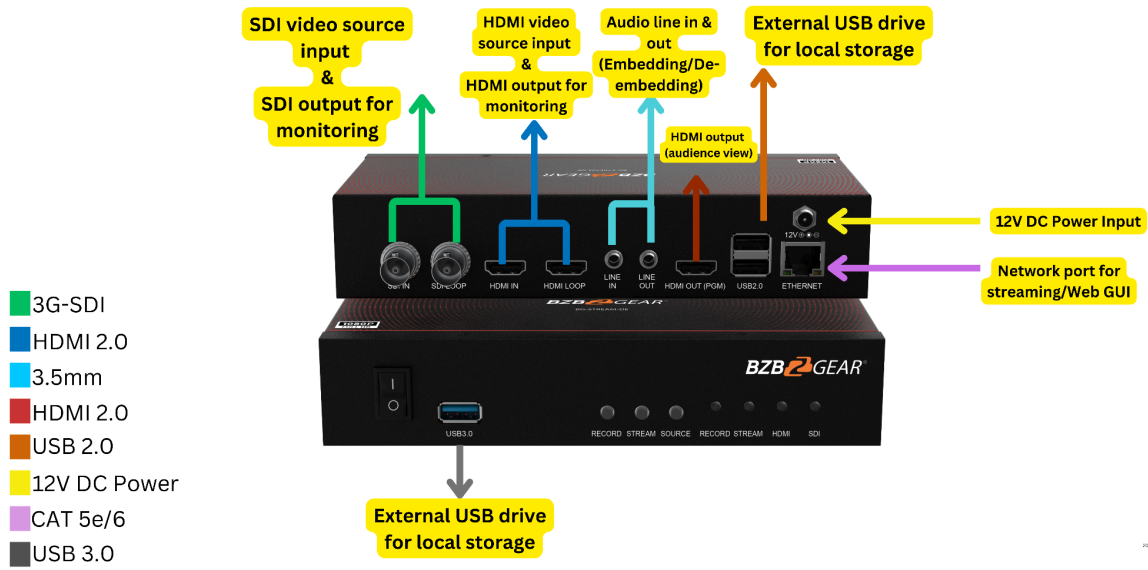
Access and Login Instructions

Username: admin
Password: 0000

Connection Diagram

SDI video source input
&
SDI output for monitoring

HDMI video source input
&
HDMI output for monitoring

Audio line in & out (Embedding/De-embedding)

External USB drive for local storage

HDMI output (audience view)

12V DC Power Input

Network port for streaming/Web GUI

External USB drive for local storage

■ 3G-SDI
■ HDMI 2.0
■ 3.5mm
■ HDMI 2.0
■ USB 2.0
■ 12V DC Power
■ CAT 5e/6
■ USB 3.0

Troubleshooting

Problems	Causes	Solutions
No Power / All LED off	Power supply not connected, connected fully, or wrong power supply.	Check if the power supply is connected correctly and the output voltage value is within recommended specifications.
No sound or sound issues	The HDMI connection is faulty, the audio format is not supported by the displays, or the source player is set to another port for audio output	Check if the HDMI cables are connected correctly. Check if the audio format is supported by the display and that a user has not changed the supported audio format on the player`s audio output. Ensure output settings from the HDMI source device as set correctly.
No picture or picture flickers	The HDMI cable may be faulty or the category cable quality is faulty.	Check if the HDMI and category cable connections are correct and undamaged. Change to another good working HDMI cable or category cable (CAT6 or better cable is recommended).

Tech Support

Have technical questions? We may have answered them already!

Please visit BZBGEAR's support page (bzbgear.com/support) for helpful information and tips regarding our products. Here you will find our Knowledge Base (bzbgear.com/knowledge-base) with detailed tutorials, quick start guides, and step-by-step troubleshooting instructions. Or explore our YouTube channel, BZB TV (youtube.com/c/BZBTVchannel), for help setting up, configuring, and other helpful how-to videos about our gear.

Need more in-depth support? Connect with one of our technical specialists directly:

Phone	Email	Live Chat
1.888.499.9906	support@bzbgear.com	bzbgear.com

Warranty

BZBGEAR Pro AV products and cameras come with a three-year warranty. An extended two-year warranty is available for our cameras upon registration for a total of five years.

For complete warranty information, please visit bzbgear.com/warranty.

For questions, please call 1.888.499.9906 or email support@bzbgear.com.

Mission Statement

BZBGEAR is a breakthrough manufacturer of high-quality, innovative audiovisual equipment ranging from AVoIP, professional broadcasting, conferencing, home theater, to live streaming solutions. We pride ourselves on unparalleled customer support and services. Our team offers system design consultation, and highly reviewed technical support for all the products in our catalog. BZBGEAR delivers quality products designed with users in mind.

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