

Blackmagic Design BMD-CONVMASA4K

Blackmagic Design Mini Converter SDI to Analog 4K (BMD-CONVMASA4K) Instruction Manual

1. INTRODUCTION

The Blackmagic Design Mini Converter SDI to Analog 4K is a professional video converter designed to transform SD, HD, 3G, and 6G-SDI video signals into analog formats. This device supports output to HD/SD component, NTSC, and PAL video. It includes a built-in down converter, enabling the connection of Ultra HD sources to standard definition or high definition component video, as well as NTSC and PAL video. This functionality allows seamless integration with a wide range of analog equipment, including Betacam SP, VHS recorders, and various video monitors.

This manual provides essential information for the proper setup, operation, and maintenance of your Mini Converter, ensuring optimal performance and longevity.

2. SAFETY INFORMATION

- **Power Supply:** Use only the power supply provided or approved by Blackmagic Design. Ensure the power source matches the voltage requirements specified for the converter.
- **Ventilation:** Do not block ventilation openings. Ensure adequate airflow around the unit to prevent overheating.
- **Moisture:** Keep the converter away from water or excessive moisture. Do not operate in wet environments.
- **Handling:** Handle the device with care. Avoid dropping or subjecting it to strong impacts.
- **Servicing:** Do not attempt to service the unit yourself. Refer all servicing to qualified service personnel.

3. PACKAGE CONTENTS

Verify that your package contains the following items:

- Blackmagic Design Mini Converter SDI to Analog 4K
- Universal Power Supply

4. PRODUCT OVERVIEW

The Mini Converter SDI to Analog 4K is a compact and robust solution for integrating modern SDI workflows with legacy analog systems. Its stainless steel construction ensures durability, while its advanced features provide versatile conversion capabilities.

Key Features:

- Converts SDI to analog video.
- Supports switchable SD/HD/3G/6G-SDI video input.
- Automatically matches SD/HD/6G-SDI video output.
- Analog video output: NTSC, PAL, S-video, component SD/HD from 6G-SDI input.
- Analog audio output: 2-channel professional balanced analog audio (1/4" Terminal).
- AES/EBU audio output: 2-channel professional balanced digital audio (1/4" Terminal).
- Features SDI redundant input with automatic switching if the main SDI input is lost.
- Supported multirate: SD/HD/6G-SDI automatic detection.
- Includes reclocking functionality.
- Low power consumption: 8.04 Watts.



This image shows the Blackmagic Design Mini Converter SDI to Analog 4K, a compact device with various input and output ports for video and audio conversion.

5. SETUP

Follow these steps to set up your Mini Converter:

1. **Connect Power:** Connect the included universal power supply to the converter's DC input and then to a power outlet. The converter will power on automatically.
2. **Connect SDI Input:** Connect your SDI source (e.g., camera, router, video deck) to the SDI IN port on the converter using a high-quality SDI cable. If using redundant input, connect a second SDI source to the SDI IN (Redundant) port.
3. **Connect Analog Video Output:** Connect the analog video output ports (Component Y, B-Y, R-Y, or Composite/S-Video) to your analog display or recording device. Ensure the correct cable type (e.g., RCA for composite, BNC for component) is used.
4. **Connect Analog Audio Output:** If needed, connect the 1/4" TRS jacks for balanced analog audio output to your audio mixer or monitoring system.
5. **Connect AES/EBU Audio Output:** If needed, connect the 1/4" TRS jacks for balanced digital audio output to your AES/EBU compatible equipment.
6. **Configure Settings (if necessary):** The Mini Converter features built-in mini switches for quick configuration. Refer to the diagram printed on the back of the unit for specific pin settings to adjust output formats or other parameters. Most common settings are automatically detected.

6. OPERATING

The Blackmagic Design Mini Converter SDI to Analog 4K is designed for ease of use with automatic detection features.

- **Automatic Input Detection:** The converter automatically detects the incoming SD, HD, 3G, or 6G-SDI video format.
- **Down Conversion:** When an Ultra HD (6G-SDI) signal is input, the built-in down converter can automatically scale the video to SD or HD component, NTSC, or PAL formats as configured by the mini switches.
- **Audio Handling:** Embedded SDI audio is automatically de-embedded and output through the analog and AES/EBU audio ports.
- **Redundant Input:** If the main SDI input signal is lost, the converter will automatically switch to the redundant SDI input, if connected, ensuring uninterrupted operation.

7. MAINTENANCE

Proper maintenance ensures the longevity and reliable operation of your converter.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use liquid cleaners or aerosols.
- **Ventilation:** Regularly check that the ventilation holes are clear of dust and debris.
- **Storage:** When not in use for extended periods, store the converter in a cool, dry place, away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

If you encounter issues with your Mini Converter, refer to the following common troubleshooting steps:

- **No Video Output:**

- Ensure all cables are securely connected.
- Verify the SDI input signal is active and compatible.
- Check the analog output format settings using the mini switches on the converter to match your display device.
- Confirm your display device is set to the correct input.

- **Incorrect Video Format/Resolution:**

- Adjust the mini switch settings to select the desired output format (e.g., NTSC, PAL, HD component).
- Ensure the input SDI signal is within the supported range for down conversion if applicable.

- **No Audio Output:**

- Check audio cable connections.
- Verify that the SDI input signal contains embedded audio.
- Ensure your audio receiving device is correctly configured and powered.

- **Power Indicator Off:**

- Check the power supply connection to the converter and the wall outlet.
- Test the power outlet with another device.

If problems persist, contact Blackmagic Design support for further assistance.

9. SPECIFICATIONS

Feature	Detail
Brand	Blackmagic Design
Model	BMD-CONVMASA4K (Part Number: 002591)
Interface Type	SDI
SDI Video Input	Switchable SD/HD/6G-SDI
SDI Video Output	Automatically matches SD/HD/6G-SDI video input
Analog Video Output	NTSC, PAL, S-video, component SD/HD from 6G-SDI input
Analog Audio Output	2-channel Professional Balanced Analog Audio (1/4" Terminal)
AES/EBU Audio Output	2-channel Professional Balanced Digital Audio (1/4" Terminal)
SDI Redundant Input	Automatic switching when the main SDI input is lost
Supported Multirate	SD/HD/6G-SDI automatic detection
Reclocking	Yes
Maximum Supply Voltage	12 Volts
Power Consumption	8.04 Watts

Feature	Detail
Material	Stainless Steel
Compatible Devices	Monitor
Item Weight	0.67 Pounds

10. WARRANTY AND SUPPORT

Warranty: The product comes with a warranty. Please refer to Blackmagic Design's official website or the documentation included with your purchase for detailed warranty terms and conditions, including the duration and coverage.

Technical Support: For technical assistance, product registration, or to download the latest software updates, please visit the official Blackmagic Design support page. You can find more information and contact details at the [Blackmagic Design Store on Amazon](#) or their main corporate website.