

Decimator MD-Cross

Decimator MD-Cross Miniature SDI/HDMI Cross Converter

Model: MD-Cross

Brand: Decimator

1. INTRODUCTION

The Decimator MD-Cross is a portable SDI/HDMI cross converter designed for professional video applications. It features an intuitive LCD and button control system, eliminating the need for a computer to adjust settings. This device supports scaling and frame rate conversion for both HDMI and SDI inputs, ensuring compatibility across various video standards. It also functions as a 1 to 4 distribution amplifier for SDI signals.

2. PRODUCT OVERVIEW

The MD-Cross offers a comprehensive set of features for video signal management:

- **Built-In Scaler:** Supports 3G level A and B on both input and output, enabling conversions between these levels. It also allows for horizontal and/or vertical image flipping.
- **Cross Conversions:** Integrates a down/up cross converter to scale and/or frame rate convert HDMI or SDI inputs to the desired standard.
- **Easy-to-Use Interface:** Features an LCD screen and button control system for direct access to all settings without requiring external software.
- **Distribution Amplifier:** Equipped with four (3G/HD/SD)-SDI outputs, allowing it to function as a 1 to 4 distribution amplifier. Output pair 1 can mirror the SDI input or match output pair 2.
- **Portability:** Designed for on-the-go use, providing advanced conversion capabilities in a compact form factor.



Figure 2.1: Front and side view of the Decimator MD-Cross, showing HDMI input/output, USB, power input, SDI input, active loop output, and SDI outputs, along with the LCD screen and control buttons.

3. SETUP

3.1. Connecting the Device

1. **Power Connection:** Connect the provided power adapter to the '+5V to +32V DC' input on the side of the MD-Cross. Ensure the power source is within the specified voltage range.
2. **HDMI Input:** Connect your HDMI source device (e.g., camera, computer) to the 'HDMI INPUT' port.
3. **HDMI Output:** Connect your HDMI display or recording device to the 'HDMI OUTPUT' port.
4. **SDI Input:** Connect your SDI source device to the 'SDI INPUT 1' port.
5. **SDI Outputs:** Connect your SDI display or recording devices to the 'SDI OUTPUT 3' and 'SDI OUTPUT 4' ports. The 'ACTIVE LOOP OUTPUT 2' provides a direct loop-through of the SDI input.
6. **USB Connection:** For advanced configuration via computer software, connect a USB cable from the 'USB' port on the MD-Cross to your computer.

3.2. Initial Power On

Once all necessary connections are made, apply power to the unit. The LCD screen will illuminate, displaying the current input and output status. The device is now ready for operation.

4. OPERATION

4.1. Navigating the Menu

The MD-Cross features an LCD screen and four control buttons: two arrow buttons (left/right), 'BACK', and 'ENTER'.

- Use the **arrow buttons** to scroll through menu options or adjust parameter values.
- Press **ENTER** to select a menu item or confirm a setting.
- Press **BACK** to return to the previous menu or cancel an action.

4.2. Scaling and Frame Rate Conversion

The MD-Cross can convert video signals to different resolutions and frame rates. Navigate to the 'Scaler' or 'Format Conversion' menu using the control buttons. Select the desired output resolution and frame rate from the available options. The device supports various broadcast standards.

4.3. Distribution Amplifier Functionality

The four SDI outputs can be configured for distribution. By default, 'SDI OUTPUT 3' and 'SDI OUTPUT 4' will carry the converted signal. 'ACTIVE LOOP OUTPUT 2' provides a direct, unconverted pass-through of the SDI input. Output pair 1 can be set to either copy the SDI input or match the signal on output pair 2.

4.4. SDI Level A/B Conversion

The converter supports both 3G SDI Level A and Level B. This allows for seamless conversion between these two standards, ensuring compatibility with a wide range of professional SDI equipment. Access this setting within the SDI configuration menu.

4.5. Image Flipping

The built-in scaler allows for horizontal and/or vertical flipping of the image. This feature is useful for specific monitoring or display requirements. Locate the 'Image Flip' option in the scaler settings to enable or disable this function.

5. MAINTENANCE

The Decimator MD-Cross is designed for durability and requires minimal maintenance.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid using liquid cleaners or solvents, as they may damage the finish or internal components.
- **Firmware Updates:** Periodically check the Decimator website for firmware updates. Updates can provide new features, performance improvements, or bug fixes. Firmware can typically be updated via the USB connection using dedicated software.
- **Storage:** When not in use, store the device in a cool, dry place, away from direct sunlight and extreme temperatures.

6. TROUBLESHOOTING

If you encounter issues with your MD-Cross, refer to the following common troubleshooting steps:

- **No Power:** Ensure the power adapter is securely connected to both the unit and a working power outlet. Verify the power adapter is functioning correctly.
- **No Video Output:**
 - Check all HDMI and SDI cable connections.
 - Verify that the input source is active and outputting a signal.
 - Confirm that the output resolution and frame rate settings on the MD-Cross are compatible with your display or recording device.
 - Try a different input or output port if available.
- **Incorrect Colors or Image Distortion:**
 - Ensure all cables are of good quality and properly connected.
 - Check the color space and signal format settings on both the MD-Cross and your connected devices.
- **Device Not Responding:** If the unit becomes unresponsive, disconnect the power for a few seconds, then reconnect it to perform a soft reset.
- **Software Connection Issues (USB):** If using the USB connection for configuration, ensure you have the correct drivers installed and are using a compatible USB port (USB 3.0 recommended for some Decimator devices).

For persistent issues, consult the official Decimator support resources or contact customer service.

7. SPECIFICATIONS

Feature	Detail
Model Number	MD-Cross (FBA_DD-CROSS)
Inputs	1x HDMI, 1x (3G/HD/SD)-SDI
Outputs	1x HDMI, 4x (3G/HD/SD)-SDI (including 1 active loop output)
Conversion Capabilities	Scaling, Frame Rate Conversion, SDI Level A/B Conversion, Horizontal/Vertical Image Flipping
Control Interface	LCD Screen and Push Buttons, USB for PC software control
Power Input	+5V to +32V DC
Product Dimensions	10.1 x 6.2 x 2.5 inches (25.65 x 15.75 x 6.35 cm)
Item Weight	1 pound (0.45 kg)
Manufacturer	Decimator

8. WARRANTY AND SUPPORT

Decimator products are manufactured to high standards. For warranty information, please refer to the

documentation included with your purchase or visit the official Decimator website. Technical support and additional resources, including firmware downloads and FAQs, are available through the manufacturer's support channels.