

Roland V-1SDI

Roland V-1SDI 4-Channel HD Video Switcher User Manual

Model: V-1SDI

1. INTRODUCTION

This manual provides essential instructions for the setup, operation, and maintenance of your Roland V-1SDI 4-Channel HD Video Switcher. The V-1SDI is designed for professional video production, offering versatile switching capabilities for various HD video signals. This bundle also includes a Roland CB-BV1 Carry Bag for convenient transport and protection of your video switcher. Please read this manual thoroughly before using the product to ensure correct and safe operation.

2. PRODUCT OVERVIEW

The Roland V-1SDI is a compact and powerful video switcher capable of handling multiple video sources. It features three SDI inputs and one HDMI input, allowing for flexible connectivity with various cameras and devices. The switcher supports HD-only video signals on its SDI inputs and a range of SD, HD, and computer video formats up to 1920 x 1200 (WUXGA) at 60 Hz on its HDMI input.

Key features include:

- Three SDI Inputs and One HDMI Input for diverse source connectivity.
- Multiview HDMI Output for monitoring all inputs simultaneously.
- USB and RS-232 Remote Control Ports for external control.
- Internal I to P Processing for converting interlaced footage to progressive.
- Image Freeze and Output Fades for creative control.
- Eight Memory Functions to recall specific setups.



Figure 2.1: Roland V-1SDI 4-Channel HD Video Switcher and the included CB-BV1 Carry Bag.



Figure 2.2: Angled view of the V-1SDI control panel, showing input selection buttons, T-bar fader, and various control knobs.



Figure 2.3: Top-down view of the V-1SDI control panel, highlighting the layout of buttons and indicators for program (PGM) and preview (PST) outputs.



Figure 2.4: The Roland CB-BV1 Carry Bag, designed for protecting the V-1SDI switcher during transport. It features a durable exterior and padded interior.

3. SETUP

Before operating the Roland V-1SDI, ensure all connections are made correctly.

3.1 Power Connection

- Connect the supplied AC adapter to the DC IN jack on the rear panel of the V-1SDI.
- Plug the AC adapter into a standard power outlet.
- Press the POWER button on the rear panel to turn the unit on.

3.2 Video Input Connections

The V-1SDI features three SDI inputs and one HDMI input.

- **SDI Inputs (1-3):** Connect SDI cameras or other SDI video sources to the SDI IN 1, 2, and 3 ports. These inputs support HD-only signals.
- **HDMI Input (4):** Connect HDMI devices such as cameras, computers, or media players to the HDMI IN 4 port. This input supports SD, HD, and computer video formats up to 1920 x 1200 (WUXGA) at 60 Hz.

3.3 Video Output Connections

- **SDI OUT (PGM):** Connect this output to a display or recording device to view or capture the program output. This output supports SMPTE 424M (SMPTE 425M-AB), 292M, and 259M-C.
- **SDI OUT (PVW):** Connect this output to a display for previewing sources before they go live. This output supports SMPTE 424M (SMPTE 425M-AB), 292M, and 259M-C.
- **HDMI OUT (Multiview):** Connect this output to an HDMI monitor to view all input sources simultaneously, along with program and preview outputs. This output is HDCP compliant.
- **HDMI OUT (PGM):** Connect this output to a display or recording device to view or capture the program output. This output is HDCP compliant.

3.4 Audio Connections

- **AUDIO IN (RCA):** Connect external audio sources to the RCA L/R audio input jacks.
- **MIC IN (1/8" Stereo Mini):** Connect a microphone to the MIC input jack.
- **PHONES (1/8" Stereo Mini):** Connect headphones for monitoring audio.



Figure 3.1: Rear panel of the V-1SDI, showing DC IN, POWER, USB, MULTIVIEW, SDI OUT, HDMI IN, SDI IN, and AUDIO IN ports.



Figure 3.2: Side panel of the V-1SDI, showing MIC and PHONES input/output jacks.

4. OPERATING INSTRUCTIONS

The V-1SDI offers intuitive controls for live video switching and effects.

4.1 Basic Switching

- **Program (PGM) and Preview (PST):** The V-1SDI uses a PGM/PST bus system. The 'A' row of buttons selects the Program output (what is currently live), and the 'B' row selects the Preview output (what will be live next).
- **CUT Button:** Instantly switches the Program output from the current source to the Preview source.
- **MIX Button:** Performs a dissolve transition between the Program and Preview sources. The speed of the dissolve can be adjusted.
- **WIPE Button:** Performs a wipe transition. Various wipe patterns are available.
- **T-Bar Fader:** Manually controls the speed and direction of transitions (MIX, WIPE). Pushing the T-bar down transitions from the 'A' bus to the 'B' bus.

4.2 Effects and Functions

- **Picture-in-Picture (PinP):** Use the PinP button and CONTROL 1 knob to enable and adjust a smaller video input overlaid on the main program.

- **Split:** Use the SPLIT button and CONTROL 2 knob to display two video inputs side-by-side.
- **DSK (Downstream Keyer):** The DSK function allows for overlaying graphics or titles. Use the DSK button and KEY LEVEL knob to adjust.
- **FREEZE:** Press the FREEZE button to momentarily pause the current video output.
- **MEMORY:** The V-1SDI has eight memory functions to save and recall specific settings and configurations. Press the MEMORY button and then the desired numbered button (1-8) to recall a preset.
- **AUDIO:** Use the AUDIO button to access audio mixing controls.
- **OUTPUT FADE:** Use the OUTPUT FADE knob to fade the video output to black or white.

4.3 Remote Control

The V-1SDI can be controlled remotely via its USB or RS-232 ports. Roland provides software applications for PC control, and an iPad app is also available for enhanced control and visual feedback.

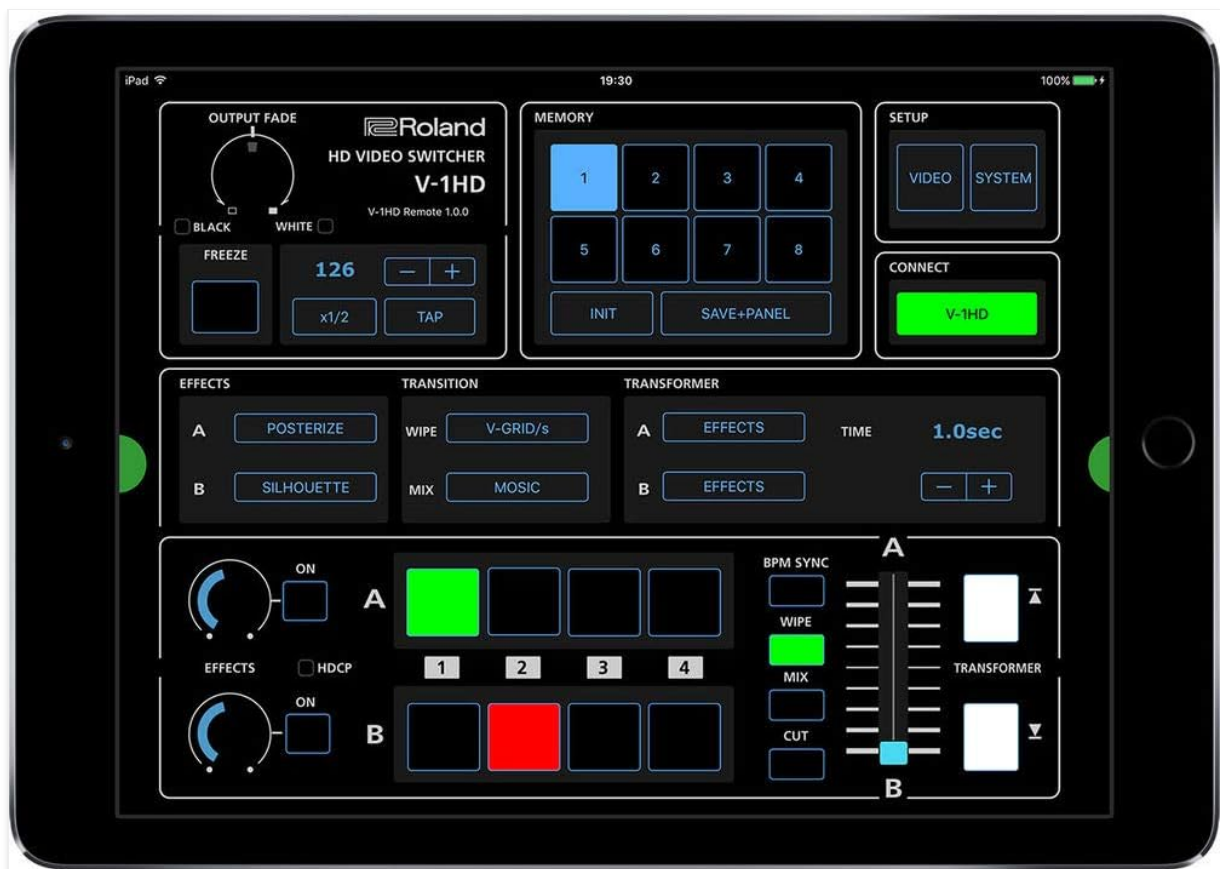


Figure 4.1: Example of an iPad application interface for controlling Roland V-series video switchers, offering advanced visual control over effects and transitions.

5. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Roland V-1SDI.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid using abrasive cleaners, solvents, or waxes.
- **Storage:** When not in use, store the V-1SDI in a cool, dry place, preferably within its CB-BV1 Carry Bag, to protect it from dust and physical damage.
- **Ventilation:** Ensure the unit has adequate ventilation during operation to prevent overheating. Do not block ventilation openings.

6. TROUBLESHOOTING

If you encounter issues with your V-1SDI, refer to the following common troubleshooting steps.

1. No Video Output:

- Check all video cable connections (SDI, HDMI) to ensure they are securely plugged in.
- Verify that the input sources are powered on and outputting a signal.
- Ensure the correct input is selected on the V-1SDI's program bus.
- Confirm that the output display or recording device is correctly configured and powered on.

2. Interlaced Video Issues:

- The V-1SDI internally converts interlaced footage to progressive. If you experience artifacts, ensure your input sources are compatible and check the system settings.

3. HDCP Compatibility:

- HDMI inputs and the multiview output are HDCP compliant. If you are connecting an HDCP-protected source to an HDMI input, ensure your output device also supports HDCP. Non-HDCP compliant devices may not display protected content.

4. No Audio:

- Check audio cable connections.
- Verify audio levels on the V-1SDI and connected devices.
- Ensure the correct audio input is selected and enabled.

5. Remote Control Not Working:

- Ensure the USB or RS-232 cable is properly connected.
- Verify that the correct drivers or software are installed on your PC or iPad.
- Check the communication settings in the remote control application.

7. SPECIFICATIONS

The following are technical specifications for the Roland V-1SDI 4-Channel HD Video Switcher.

Feature	Detail
Product Dimensions	16.2 x 9.8 x 5.3 inches
Item Weight	0.01 ounces
ASIN	B07KR2KC2D
Date First Available	November 21, 2018
Manufacturer	Roland
Color	Black
Connector Type	HDMI, SDI, RCA, 1/8" Stereo Mini
Compatible Devices	Personal Computer, Video Cameras, Media Players

Feature	Detail
Cable Type	USB

8. WARRANTY AND SUPPORT

Warranty information for the Roland V-1SDI is typically provided with the product at the time of purchase. Please refer to the warranty card or documentation included in your product packaging for specific terms and conditions.

For technical support, additional resources, or to download the latest firmware and software, please visit the official Roland website: www.roland.com.