

## AVMATRIX VS0601

# AVMATRIX VS0601 Multi-Format Video Switcher User Manual

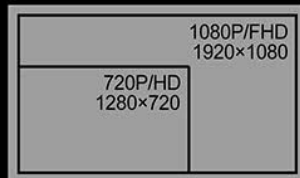
Model: VS0601 | Brand: AVMATRIX

## 1. INTRODUCTION AND OVERVIEW

The AVMATRIX VS0601 is a compact, multi-format 6-channel video switcher designed for live production environments. It supports a variety of input signals, including 4 SDI and 2 HDMI inputs, and offers scaled outputs for both SDI and HDMI Program (PGM) feeds. The device also features HDMI and SDI multiview outputs for comprehensive monitoring, various transition effects (CUT, AUTO, T-BAR, FADE, WIPE, MIX), GPIO Tally, Picture-in-Picture (PIP), and Fade-to-Black (FTB) functionalities. Its portable design makes it suitable for diverse applications.

## 2. PRODUCT FEATURES

- **Multi-format 6-Channel Input:** Accepts 4 SDI and 2 HDMI input signals.
- **Scaled Outputs:** SDI and HDMI PGM outputs with scaling capabilities.
- **Multiview Monitoring:** Dedicated HDMI and SDI multiview outputs for monitoring all inputs simultaneously.
- **Transition Effects:** Supports CUT, AUTO, T-BAR transitions, along with FADE, WIPE, and MIX effects.
- **GPIO Tally Interface:** For integration with live tally systems.
- **Picture-in-Picture (PIP):** Allows for overlaying one video source onto another.
- **Fade-to-Black (FTB):** Smooth transition to a black screen.
- **Compact Design:** Portable and easy to transport for on-location use.



### Multi-format & Scaler

Flexible to accept 6 input sources with different format and frame rate, with build-in scaler, PGM output can be scaled to 1080i and 1080p.



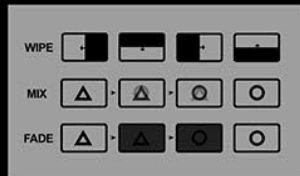
### Multiview Monitoring

Multiview output make it easy to monitor 6 channels sources as well as PVW and PGM simultaneously on one display, besides, a clock and menu list are located in the lower right corner of the multiview.



### PiP

To insert a second picture into/outside the main picture. Simply adjust its size and position, then apply to program.



### Transition Effects

Transition between PVW and PGM with WIPE / MIX / FADE effect through T-Bar & AUTO.



### Audio Mixer

A built-in audio mixer can mix 2 external stereo 3.5mm stereo & RCA audio and 6 channels of embedded audio.



### Portable Handbag

A total of 1.7kg including packing accessories, with a handbag, it is very portable and suitable for various applications.

Figure 2.1: Key Features Overview

## 3. SETUP

### 3.1 Unpacking and Inspection

Carefully unpack the AVMATRIX VS0601 and all accessories. Inspect the unit for any signs of damage during transit. Retain the packaging materials for future transport or storage.

### 3.2 Connecting Power

Connect the provided DC 12V power adapter to the 'DC 12V' input port on the rear panel of the switcher. Plug the adapter into a suitable power outlet. Ensure the power switch is in the 'OFF' position before connecting power.

### 3.3 Video Input Connections

The VS0601 supports 4 SDI inputs and 2 HDMI inputs. Connect your video sources (cameras, media players, computers) to the corresponding input ports on the rear panel.

- **SDI Inputs:** Connect up to four SDI sources to the 'SDI IN 1-4' ports.
- **HDMI Inputs:** Connect up to two HDMI sources to the 'HDMI IN 5-6' ports.



Figure 3.1: Rear Panel Connections

### 3.4 Video Output Connections

Connect your display monitors or recording devices to the output ports.

- **Program (PGM) Output:** Connect your main program display or recorder to the 'PGM OUT' (SDI or HDMI) ports.
- **Multiview Output:** Connect a monitor to the 'MULTIVIEW OUT' (HDMI or SDI) for simultaneous viewing of all inputs, program, and preview.
- **USB Output:** Connect to a computer via the 'USB OUT' port for streaming applications.

### 3.5 Audio Connections

The switcher includes audio input and output options.

- **Audio Input:** Connect external audio sources to the 'AUDIO IN' (RCA L/R or 3.5mm stereo) ports.
- **Audio Output:** Connect to external audio monitoring or recording devices via the 'AUDIO OUT' (RCA L/R or 3.5mm stereo) ports.

### 3.6 Tally and LAN Connections

- **Tally:** Connect a Tally system to the 'TALLY' (DB-15) port for visual indication of program and preview sources.
- **LAN:** Connect an Ethernet cable to the 'LAN' (RJ45) port for network control and firmware updates.

## 4. OPERATING INSTRUCTIONS

### 4.1 Front Panel Controls

The front panel provides intuitive controls for selecting inputs, managing transitions, and adjusting audio.



Figure 4.1: Front Panel Layout

- **PGM (Program) Buttons:** Select the input currently live on the program output.
- **PVW (Preview) Buttons:** Select the input to be previewed before transitioning to program.
- **T-Bar:** Manually control transitions between preview and program.
- **CUT Button:** Instantly switch from preview to program.
- **AUTO Button:** Execute a transition with a pre-set speed.
- **MENU Knob:** Navigate and select options within the on-screen display (OSD) menu.
- **AUDIO/EFFECTS Buttons:** Access audio mixer controls, keying functions (Chroma, Luma, DSK), and Picture-in-Picture (PIP) settings.

## 4.2 Basic Switching

1. Power on the unit using the switch on the rear panel.
2. On the Multiview monitor, observe all connected inputs.
3. Press a button in the **PVW** row to select an input for preview. This input will appear on the preview section of your multiview monitor.
4. Press a button in the **PGM** row to select an input for program. This input will immediately go live.
5. To transition from the previewed source to the program output, use the **T-Bar**, **CUT** button for an instant switch, or **AUTO** button for a timed transition.

## 4.3 Audio Mixing

The VS0601 features an integrated audio mixer. Access the audio controls via the front panel buttons and the OSD menu to adjust levels for embedded audio from HDMI/SDI inputs and external analog audio inputs.

- Use the **AFV (Audio Follow Video)** function to automatically switch audio with video transitions.
- Manually adjust individual audio channel levels using the menu and rotary knob.

## 4.4 Keying and PIP

The switcher supports various keying effects and Picture-in-Picture functionality.

- **Chroma Key:** Use for green screen or blue screen effects.
- **Luma Key:** Key based on brightness levels.
- **DSK (Downstream Key):** Overlay graphics or text onto the program output.
- **PIP (Picture-in-Picture):** Display a smaller video source within the main program video. Adjust size and position through the OSD menu.

## 5. SPECIFICATIONS

Category	Detail
Model	VS0601
Inputs	4x SDI (SD/HD/3G-SDI), 2x HDMI (Type-A)
Analog Audio Inputs	1x 3.5mm stereo audio, 1x RCA (L/R) audio
PGM Outputs	1x SDI (SD/HD/3G-SDI), 1x HDMI (Type-A)
AUX Output	1x SDI (SD/HD/3G-SDI)
Multiview Outputs	1x SDI (SD/HD/3G-SDI), 1x HDMI (Type-A)
Analog Audio Output	1x 3.5mm stereo audio, 1x RCA (L/R) audio
LAN Interface	RJ45 x1, Synchronize local time
Tally Interface	DB-15 x1
SDI Input Format Support	1080p 60/50/30/25/24, 1080i 60/50, 720p 60/50, 576i, 480i
HDMI Input Format Support	1080p 60/50/30/25/24, 1080i 60/50, 720p 60/50, 576p, 576i, 480p, 480i
PGM Output Format	1080p 60/50/30/25/24, 1080i 60/50
Multiview Output Format	1080p 60
SDI Compliance	SMPTE 292M/SMPTE 259M/SMPTE 424M
Dimensions (LWD)	249.2 x 172.3 x 55mm
Weight	1 kg (2.2 lbs)
Working Temperature	-20~60°C
Storage Temperature	-30~70°C
Current	DC 12V, 1.2A
Voltage	DC 6-17V
Power Supply	DC 12V, 2A

<b>FUNCTIONS</b>	Transitions	Manual T-bar/ AUTO/ CUT
	Functions	Wipe/ Mix/ Fade/ FTB
	Layouts	PiP/ Multiview
	Audio Mixer	Following/ Mixing
<b>INPUTS</b>	Video Inputs	SD/HD/3G-SDI(75Ω)×4, HDMI type-A(100Ω)×2
	Analog Audio Inputs	3.5mm stereo audio ×1, RCA(L/R)×1
<b>OUTPUTS</b>	PGM Outputs	SD/HD/3G-SDI(75Ω)×2, HDMI type-A(100Ω)×1
	AUX Output	SD/HD/3G-SDI(75Ω)×1
	Multiview Outputs	SD/HD/3G-SDI(75Ω)×1, HDMI type-A(100Ω)×1
	Analog Audio Output	3.5mm stereo audio ×1, RCA(L/R)×1
<b>DATA INTERFACE</b>	LAN	RJ45×1, Synchronize local time
	Tally	DB-15×1
<b>STANDARDS</b>	SDI Input Format Support	1080p 60/59.94/50/30/29.97/25/24/23.98 1080psF 30/29.97/25/24/23.98 1080i 60/59.94/50 720p 60/59.94/50/30/29.97/25/24/23.98 625i 50 PAL, 525i 59.94 NTSC
	HDMI Input Format Support	1080p 60/59.94/50/30/29.97/25/24/23.98/23.976 1080i 50/59.94/60 720p 60/59.94/50/30/29.97/25/24/23.98 576i 50, 576p 50
	PGM Output Format	1080p 60/50/30/25/24, 1080i 60/50
	Multiview Output Format	1080p 60
	SDI Compliance	SMPTE 292M/ SMPTE 259M/ SMPTE 424M
<b>SIZE</b>	Dimension(LWD)	249.2 × 172.3 × 55mm
	Weight	1 kg
	Working Temp	-20~60°C
	Storage Temp	-30~70°C
<b>POWER</b>	Current	DC 12V, 1.2A
	Voltage	DC 6~17V
	Power Supply	DC 12V, 2A



## 6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use liquid or aerosol cleaners.
- **Ventilation:** Ensure proper ventilation around the unit to prevent overheating. Do not block any ventilation openings.
- **Storage:** When not in use for extended periods, store the switcher in a cool, dry place, preferably in its original packaging.
- **Firmware Updates:** Periodically check the AVMATRIX official website for firmware updates to ensure optimal performance and access to new features. Follow the instructions provided with the firmware update carefully.

## 7. TROUBLESHOOTING

### 7.1 No Video Output

- Verify that the power adapter is securely connected and the unit is powered on.
- Check all video cables (SDI, HDMI) for secure connections at both the switcher and the display/source.
- Ensure the correct input is selected on the PGM row.
- Confirm that the output resolution of the switcher is compatible with your display device.
- Test with different cables or display devices if possible.

### 7.2 No Audio Output

- Check all audio cables for secure connections.
- Verify audio levels in the mixer settings via the OSD menu. Ensure no channels are muted.
- Confirm that the audio source is active and producing sound.
- If using embedded audio, ensure the video source is providing audio.

### 7.3 Controls Unresponsive

- Restart the unit by powering it off and then on again.
- Ensure no foreign objects are obstructing buttons or the T-Bar.
- If connected via LAN, check network connection and control software status.

## 8. WARRANTY AND SUPPORT




For warranty information and technical support, please refer to the official AVMATRIX website or contact your local distributor. Keep your purchase receipt as proof of purchase for warranty claims.

### Online Resources:

- [AVMATRIX Official Website](#)
- [LILLIPUT Store on Amazon](#) (Manufacturer/Seller)

### Related Documents - VS0601



 <p>PVS0613 PORTABLE 6 CHANNEL MULTI-FORMAT VIDEO SWITCHER</p>	<p><a href="#">AVMATRIX PVS0613 Portable 6-Channel Multi-Format Video Switcher User Manual</a></p> <p>This manual provides comprehensive information on the AVMATRIX PVS0613, a portable 6-channel multi-format video switcher. It covers safety precautions, interfaces, specifications, front panel controls, operation instructions, and menu settings for video switching, audio mixing, and transition effects.</p>
 <p>HVS0402U MICRO 4 CHANNEL HDMI LIVE STREAM MULTI-FORMAT VIDEO SWITCHER</p>	<p><a href="#">AVMATRIX HVS0402U User Manual: 4-Channel HDMI Live Stream Video Switcher</a></p> <p>This user manual provides comprehensive instructions and specifications for the AVMATRIX HVS0402U, a 4-channel HDMI multi-format video switcher designed for live streaming and video production. Learn about its features, interfaces, operation, and system settings.</p>
 <p>PVS0615 Portable all in one Multi-format Video Switcher</p>	<p><a href="#">AVMATRIX PVS0615 Portable Multi-format Video Switcher User Manual</a></p> <p>User manual for the AVMATRIX PVS0615, a portable all-in-one 6-channel multi-format video switcher with a 15.6-inch LCD display. Covers features, connections, specifications, control panel operation, transitions, and recording.</p>
 <p>VS0601U MINI 6 CHANNEL MULTI-FORMAT STREAMING VIDEO SWITCHER</p>	<p><a href="#">AVMATRIX VS0601U Mini 6-Channel Multi-Format Streaming Video Switcher Manual</a></p> <p>Comprehensive guide to the AVMATRIX VS0601U, a compact 6-channel SDI/HDMI multi-format video switcher for live streaming, audio mixing, and transitions. Features include USB3.0 live streaming, multiple outputs, and versatile input support.</p>
 <p>PVS0615 Portable all in one Multi-format Video Switcher</p>	<p><a href="#">AVMATRIX PVS0615 Portable Multi-format Video Switcher User Manual</a></p> <p>User manual for the AVMATRIX PVS0615, a portable all-in-one 6-channel multi-format video switcher with a 15.6" LCD display. Learn about its features, connections, operation, and settings.</p>
 <p>VS0601U MINI 6 CHANNEL MULTI-FORMAT STREAMING VIDEO SWITCHER</p>	<p><a href="#">AVMATRIX VS0601U 6-Channel Multi-Format Streaming Video Switcher User Manual</a></p> <p>Comprehensive user manual for the AVMATRIX VS0601U, a 6-channel SDI/HDMI multi-format streaming video switcher. Covers features, interfaces, specifications, operation, and menu settings for professional video production and live streaming.</p>