



VS0601

MINI MULTI-FORMAT VIDEO SWITCHER

USING THE UNIT SAFELY

Before using this unit, please read below warning and precautions which provide important information concerning the proper operation of the unit. Besides, to assure that you have gained a good grasp of every feature of your new unit, read below manual. This manual should be saved and kept on hand for further convenient reference.



Warning And Cautions

- ※ To avoid falling or damage, please do not place this unit on an unstable cart, stand, or table.
- ※ Operate unit only on the specified supply voltage.
- ※ Disconnect power cord by connector only. Do not pull on cable portion.
- ※ Do not place or drop heavy or sharp-edged objects on power cord. A damaged cord can cause fire or electrical shock hazards. Regularly check power cord for excessive wear or damage to avoid possible fire / electrical hazards.
- ※ Ensure unit is properly grounded at all times to prevent electrical shock hazard.
- ※ Do not operate unit in hazardous or potentially explosive atmospheres. Doing so could result in fire, explosion, or other dangerous results.
- ※ Do not use this unit in or near water.
- ※ Do not allow liquids, metal pieces, or other foreign materials to enter the unit.
- ※ Handle with care to avoid shocks in transit. Shocks may cause malfunction. When you need to transport the unit, use the original packing materials or alternate adequate packing.
- ※ Do not remove covers, panels, casing, or access circuitry with power applied to the unit! Turn power off and disconnect power cord prior to removal. Internal servicing / adjustment of unit should only be performed by qualified personnel.
- ※ Turn off the unit if an abnormality or malfunction occurs. Disconnect everything before moving the unit.

Note: due to constant effort to improve products and product features, specifications may change without notice.

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1. BRIEF INTRODUCTION

1.1. Overview

VS0601 is a miniature design metal housing 6-channel SDI/HDMI multi-format video switcher that allows video switching, audio mixing, and different transition effects. Inputs signal is auto-detected while for PGM output can be scaled, which can be compatible with more different equipment and more flexible. With cost effective price, it will be your perfect choice for various events production applications etc.

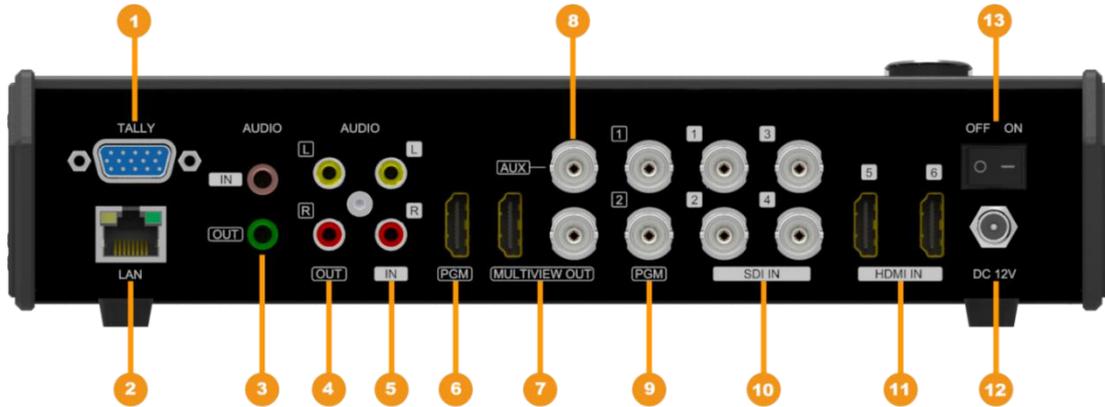


1.2. Main Features

- Miniature and portable design
- 6 channel inputs: 4×SDI and 2×HDMI inputs
- 2×SDI & 1×HDMI PGM outputs, 1×SDI & 1×HDMI multiview output
- 1×SDI AUX output, can be selected as PGM or PVW
- Multi-format support, input format auto-detected and PGM outputs select-able
- T-Bar/AUTO/CUT transitions
- Mix/ Fade/ Wipe transition effects
- PIP mode size and position adjustable
- Audio mixing
- GPIO for Tally, LAN for update
- FTB for emergency situation

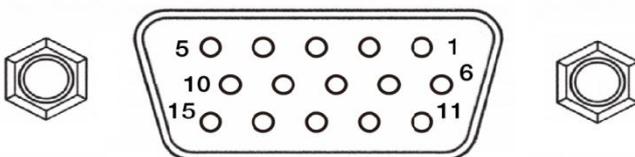
2. INTERFACES

2.1. Rear Interfaces



| | |
|----|-------------------------|
| 1 | GPIO (for tally) |
| 2 | LAN (for update) |
| 3 | 3.5mm AUDIO IN/OUT |
| 4 | AUDIO OUT |
| 5 | AUDIO IN |
| 6 | HDMI PGM OUT |
| 7 | HDMI &SDI MULTIVIEW OUT |
| 8 | SDI AUX OUT |
| 9 | SDI PGM OUT |
| 10 | SDI IN |
| 11 | HDMI IN |
| 12 | DC 12V |
| 13 | Power Switch |

2.2. Tally PIN Definition

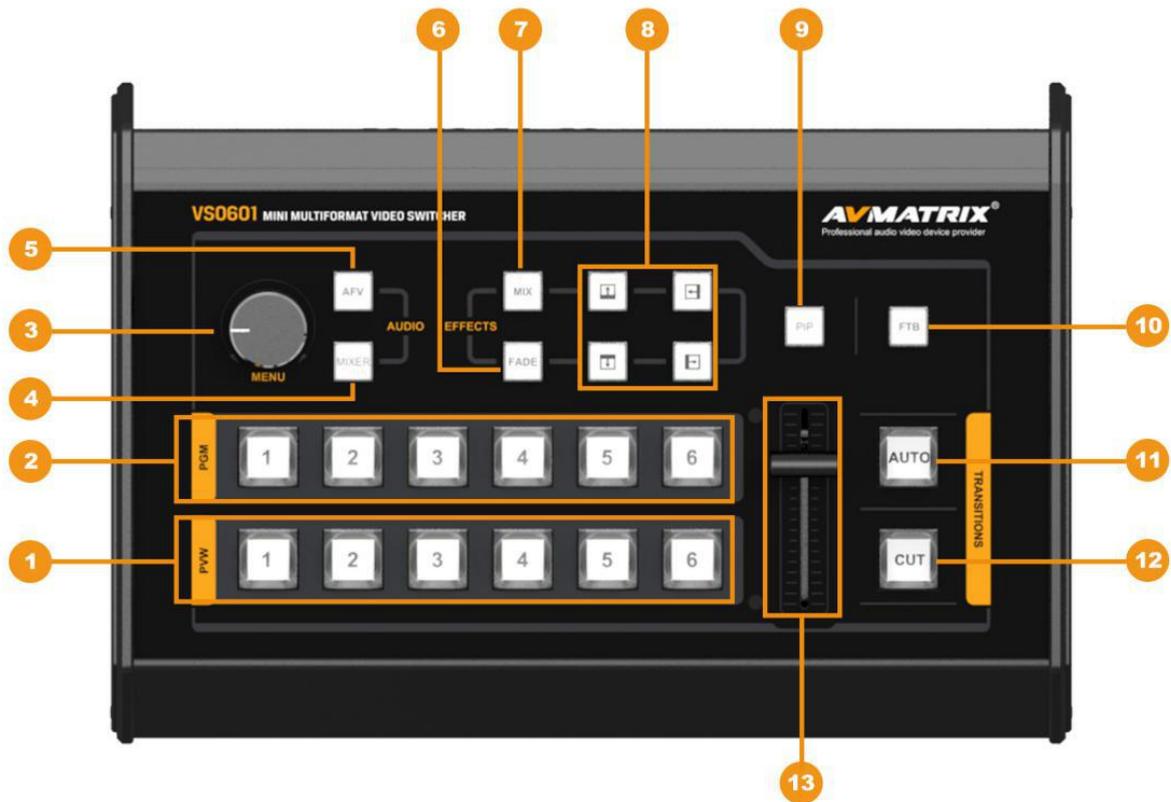


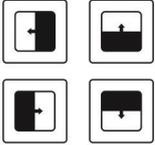
| PIN | Definition | PIN | Definition |
|-----|------------|-----|------------|
| 11 | PGM-IN1 | 6 | PVW-IN1 |
| 12 | PGM-IN2 | 7 | PVW-IN2 |
| 13 | PGM-IN3 | 8 | PVW-IN3 |
| 14 | PGM-IN4 | 9 | PVW-IN4 |
| 15 | PGM-IN5 | 10 | PVW-IN5 |
| 3 | PGM-IN6 | 4 | PVW-IN6 |
| 5 | GND | | |

3. SPECIFICATION

| | | |
|-------------------------|---------------------------|--|
| Inputs | Video Inputs | 4×3G/HD/SD-SDI, 2×HDMI |
| | SDI Input Format | 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 | 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 |
| | SDI Video Rate | Auto detection, SD/HD/3G-SDI |
| | SDI Compliance | SMPTE 259M/ SMPTE 292M/ SMPTE 424M |
| | Color Space and Precision | SDI: YUV 4:2:2, 10-bit; HDMI: RGB 444 8/10/12bit; YUV 444 8/10/12bit; YUV 422 8/10/12bit |
| | Outputs | PGM Outputs |
| PGM Output Format | | 1080p 60/50/30/25/24 1080i 50/60 |
| Multiview Output | | 1×3G/HD/SD-SDI; 1×HDMI Type A |
| Multiview Output Format | | 1080p 60 |
| Audio | Audio Input | 1×3.5mm Stereo audio; 1×RCA(L/R) |
| | Audio Output | 1×RCA(L/R); 3.5mm 1× Stere audio |
| Others | GPIO | Tally |
| | LAN | RJ45 |
| | Power | DC 12V, 2.75A |
| | Consumption | <33W |
| | Operation Temperature | -20℃~60℃ |
| | Storage Temperature | -30℃~70℃ |
| | Operation Humidity | 20%~70%RH |
| | Dimension | 249.2×172.3×55mm |
| | Weight | 1kg |
| | Warranty | 2 Year Limited |
| Accessories | Accessories | 1×Power Supply (DC12V 5A), 1×User Manual |

4. FRONT CONTROL PANEL



| | | |
|----|---|---|
| 1 | PVW:1-6 | Selecting the signal source for Preview. |
| 2 | PGM:1-6 | Selecting the signal source for Program |
| 3 | MENU | Menu Setting |
| 4 | MIXER | Support 2-ch audio mixing |
| 5 | AFV | Audio follow video mode |
| 6 | FADE | Fade transition effect |
| 7 | MIX | Mix transition effect |
| 8 |  | Wipe transition effect |
| 9 | PIP | Picture in Picture |
| 10 | FTB | Fade to Black, used for emergency situation |
| 11 | AUTO | Performs an automated switch between Program and Preview. |
| 12 | CUT | Performs a simple immediate switch between Program and Preview. |
| 13 | T-bar | T-bar Manual Transition |

5. MENU SETTING

5.1. SDI PGM/AUX and Multiview Output Format

The output format of multiview is fixed at 1080p60, and for PGM output can be set by the knob. Except PVW and PGM output, there is a AUX for choice, you can quickly select the auxiliary output between PVW and PGM via Menu knob. The default setting is PGM after reset. There are resolution 1080P 50/60/30/25/24Hz, 1080I 50/60Hz selectable for SDI/HDMI PGM and AUX outputs.

| STATUS | |
|------------|---------|
| CH1 | IN1 |
| CH2 | IN2 |
| CH1_VOL. | 100 |
| CH2_VOL. | 100 |
| AUX | PGM |
| Audio Mode | Mixing |
| PGM | 1080P30 |

| STATUS | |
|------------|---------|
| CH1 | IN1 |
| CH2 | IN2 |
| CH1_VOL. | 100 |
| CH2_VOL. | 100 |
| AUX | PGM |
| Audio Mode | Mixing |
| PGM | 1080P30 |

5.2. Audio Setting

This video switcher is coming with 1 channel L/R analog audio input & output and 1 channel 3.5mm stereo audio input and output, support both audio following video mode and audio mixing mode.

5.2.1. Mixing Mode

Press button **MIXER** to set audio mode as mixing. Press menu and choose audio channel for 2channel audio mixing, each channel, users can select audio source from IN1/ IN2/ IN3/ IN4/ IN5 / IN6/ Phone In RCA IN.

| STATUS | |
|------------|---------|
| CH1 | IN1 |
| CH2 | IN2 |
| CH1_VOL. | 100 |
| CH2_VOL. | 100 |
| AUX | PGM |
| Audio Mode | Mixing |
| PGM | 1080P30 |

| STATUS | |
|------------|---------|
| CH1 | IN1 |
| CH2 | IN2 |
| CH1_VOL. | 100 |
| CH2_VOL. | 100 |
| AUX | PGM |
| Audio Mode | Mixing |
| PGM | 1080P30 |

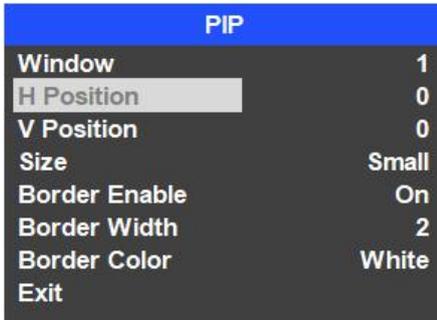
5.2.2. AFV Mode

Press **AFV** button to enable the audio follow video mode. When the audio is in AFV mode the audio is coming from the embedded audio of Program video source. User can control the audio volume by menu knob.

| STATUS | |
|------------|---------|
| CH1 | IN1 |
| CH2 | IN2 |
| CH1_VOL. | 100 |
| CH2_VOL. | 100 |
| AUX | PGM |
| Audio Mode | AFV |
| PGM | 1080P30 |

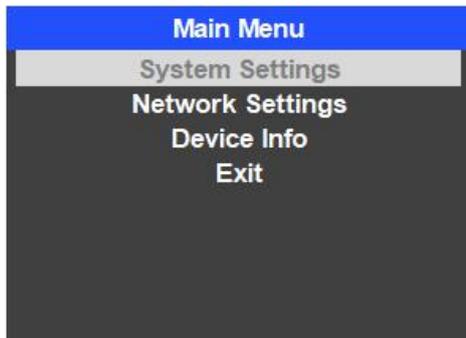
5.3. PIP

Press **PIP** button the menu will enter into an interface as below image. The window size, position and border of PIP can be set from menu.



6. MAIN MENU SETTING

When STATUS menu is not selected, press the MENU button to enter into main menu directly. In case one of the item is selected(see below), rotate the MENU button rotate anticlockwise to exit the choice, then press the MENU button to enter into main menu.



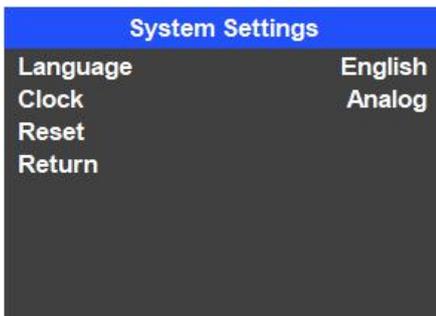
6.1. System Settings

6.1.1. Language

Entering system settings from the menu to switch the system language between English and Chinese.

6.1.2. Clock

Entering system settings from the menu to switch the real-time clock shown in Analog or Digital.



6.1.3. Clock Time Setting

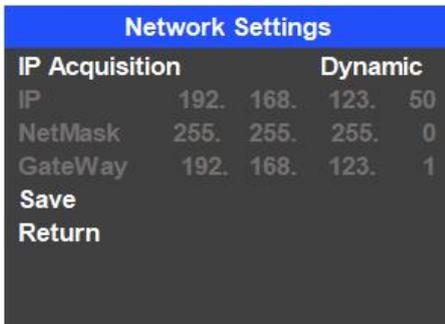
Connect video switcher to a PC and download a time control software from AVMATRIX official website www.avmatrix.net/download/ Open the software and click Scan to search and connect the device, then the clock time will be changed to same time to the PC's time.

6.2. Network Settings

6.2.1. Network

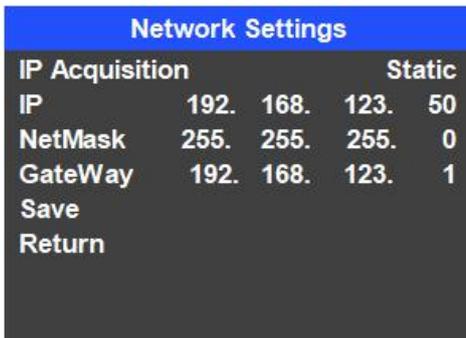
There are two ways to acquire the IP: Dynamic(IP configured by router) and Static(set IP freely by yourself) . Select the method you need by knob menu. The default setting is Daynamic.

Dynamic: Connecting the video switcher with a router with DHCP features, then it will auto obtain an IP address automatically. Make sure that the video switcher and PC are in the same local area network.



| Network Settings | | | | |
|------------------|---------|------|------|----|
| IP Acquisition | Dynamic | | | |
| IP | 192. | 168. | 123. | 50 |
| NetMask | 255. | 255. | 255. | 0 |
| GateWay | 192. | 168. | 123. | 1 |
| Save | | | | |
| Return | | | | |

Static: Select static IP acquire method when the PC is without DHCP. Connect the video switcher with PC via network cable,set the PC's IP address to the same IP range as video switcher(the video switcher's default IP address 192.168.1.215), or set the video switcher's IP address to the same IP range as PC's IP address.



| Network Settings | | | | |
|------------------|--------|------|------|----|
| IP Acquisition | Static | | | |
| IP | 192. | 168. | 123. | 50 |
| NetMask | 255. | 255. | 255. | 0 |
| GateWay | 192. | 168. | 123. | 1 |
| Save | | | | |
| Return | | | | |

6.2.2. NetMask

Set the NetMask. The default setting is 255.255.255.0.

6.2.3. GateWay

Set the GateWay according to current IP address.

Save the configuration when network setting finish.