9x1 HDMI Seamless Switcher with Multi-view

Model:

AVS-SCLHD91MV/H

rev.2022.08Aug.10

User Operation Guide

PRODUCT DESCRIPTION

The 9x1 switcher supports 9 HDMI inputs and 1 HDMI output. It have a multi-view feature which can support up to 9 HD video content can be displayed at the same time.

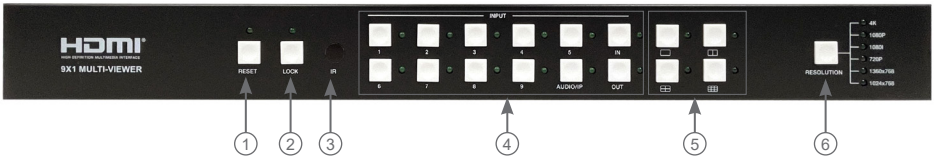
The switcher supports fast seamless switching with output resolution that can be scaled up to 4K2K@30hz.

FEATURES

- HDMI 1.4, HDCP 1.4 compliant
- Input resolution supports up to 1080p@60hz
- Output resolution supports up to 4K2K@30hz
- Fast seamless switching with scaling up to 4K@30hz
- Supports 1/2/4/9 windows in multi-view modes
- Supports RS232,IR, IP & GUI control.

PANEL DESCRIPTIONS

Front Panel



No.	Name	Description
1	RESET button and LED	Press this button up to 10s to reset to factory set, the indicator LED will blink 5 times.
2	LOCK button and LED	Press this button to lock all buttons on the panel, the indicator LED is on. Press this button again is unlock, the indicator LED is off.
3	IR	IR receiver window, it receive IR remote control signal.
4	INPUT button	**INPUT 1~9 button**: Press this button to select HDMI input source from 1 to 9. **AUDIO/IP button:** a. Select output audio signal from HDMI input . For example, when user want to select input 1 port audio to output audio port, press AUDIO/ IP button > INPUT 1 button. In this time, the AUDIO/ IP indicator LED is blink 3 times. b. Long press this button up to 6s will output the unit IP address on screen display. **IN/OUT button:** When user need select multi-screen output, firstly user need select multi-screen mode button, then through operate IN > x > OUT > y to select output screen.Please see the below detail description.
5	Multi-screen mode button	Press these button to select display mode.
6	RESOLUTION button	Press this button to select output resolution.

Specifications are subject to changes without notice.

PANEL DESCRIPTIONS

Rear Panel

No.	Name	Description
1	HDMI INPUT Area	Connect to the HDMI input source device, such as DVD player or Set top box.
2	HDMI OUTPUT Area	**HDMI OUTPUT:** Connect to the HDMI output device, such as TV or Monitor. **AUDIO OUTPUT:** Connect to audio amplifier. This audio volume can be adjust through Remote Control or Web GUI software.
3	CONTROL ports	**RJ45:** This port is the link for Web GUI or PC control, connect to an active Ethernet link with an RJ45 terminated cable. **USB:** Upgrade Fireware. **IR EXT:** IR extend receiver port, connect to IR receiver cable. **RS-232:** Connect to a PC or control system for transmission RS-232 commands or upgrade MCU firmware.
4	DC 12V	Plug the 12V/1A adapter to AC wall outlet for power supply.

SYSTEM OPERATIONS

Detail description of display mode

The 9×1 HDMI Seamless Switcher have 4 display modes.

MODE1:The 9x1 HDMI Seamless Switcher will display nine HDMI inputs separately. Switch to the front panel or remote control MODE button. Operating illustration: select MODE 1 button > select HDMI input source button [MODE 1 button(▣)>X].

MODE1-9×1 Seamless Switcher

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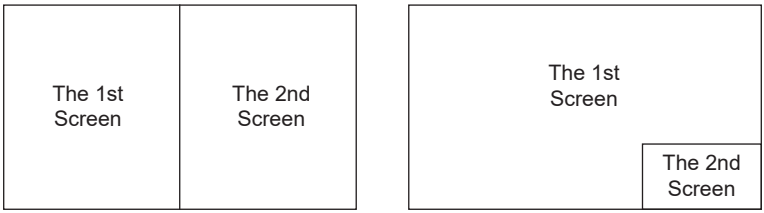
SYSTEM OPERATIONS

MODE2: The 9×1 HDMI Seamless Switcher divides two HD inputs and display on a screen. Select input signal source to different display screen. Operating illustration: press MODE 2 button (If you want to output the other display mode, please press this button two times continuously.) > press IN button > press HDMI input source button > press OUT button > press HDMI input source button (MODE 2 button).

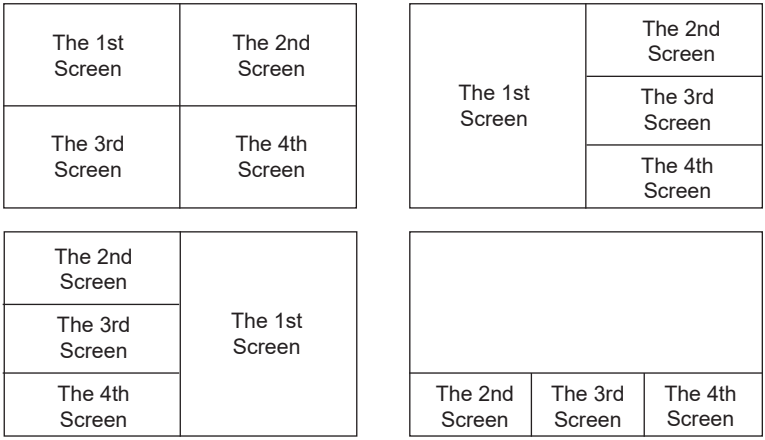
For example, if user need the second screen from the third HDMI input port [MODE 2 button( ) > IN > 3 > OUT > 2]



MODE2-2×1 Multi-Viewer

MODE3: The 9×1 HDMI Seamless Switcher divides four HD inputs and display on a screen. Select input signal source to different display screen. Operating illustration: press MODE 3 button(If you want to output another display mode, please press this button continuously.) > press IN button > press HDMI input source button > press HDMI input source button (MODE 3 button > IN > x > OUT > y).

For example, if user need the fourth screen from the third HDMI input port [MODE 3 button( ) > IN > 3 > OUT > 4]



MODE3-4×1 Multi-Viewer

**Specifications are subject to changes without notice.*

SYSTEM OPERATIONS

MODE4: The 9×1 HDMI Seamless Switcher divides nine HD inputs with same size and display on a screen. Select input signal source to different display screen. Operating illustration: press MODE 4 button > press IN button > press HDMI input source button > press OUT button > press HDMI input source button (MODE 4 button > IN > x > OUT > y)

For example, if user need the sixth screen from the first HDMI input port [MODE 4 button( ) > IN > 1 > OUT > 6]

The 1st Screen	The 2nd Screen	The 3rd Screen
The 4th Screen	The 5th Screen	The 6th Screen
The 7th Screen	The 8th Screen	The 9th Screen

MODE4-9×1 Multi-Viewer

Remote Control

Reset: Long press this botton up to 10s to reset to factory set.
Input 1~9: Press these button to select input source.

In/Out: When user need select Output multi-screen, firstly user need select the remote control Output multi-screen mode button, then through operate In > x > Out > y to output screen.

Please see the above detail description.

Audio: Select output audio signal from HDMI input port. For example, When user want to select input 1 port audio to output audio port, press Audio button > Input 1 button

: Press these button to select display mode.

RES : Cycling select resolution output.
(1024×768/1360×768/720P/1080I/1080P/4K)
IP: Press this button, the output screen left top concer will display the unit IP address.

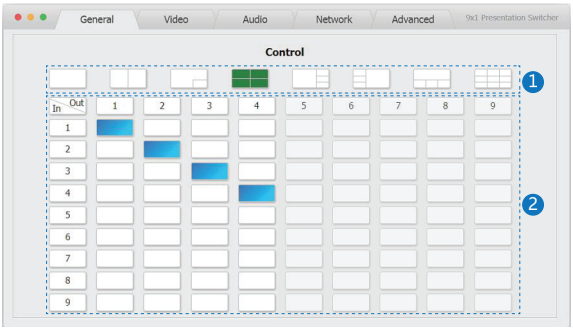
VOL-/VOL+: Adjust audio volume output.

Mute: No volume output.

Web GUI User Guide

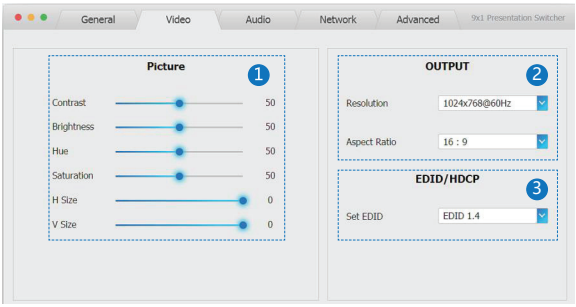
The switcher can be controlled via Web GUI software through RJ45 port. You should know current switcher IP address. The static IP address is 192.168.1.100. You can connect PC Web GUI through dynamic IP adress. If you don't know dynamic IP address, Long press AUDIO/IP button up to 6s, the output screen left top corner will display dynamic IP address. Then you should set the IP address to your PC or laptop or mobile device is within the same IP address segment with the switcher. After above, you can enter the switcher IP address in the web browser to access Web GUI.

General mode



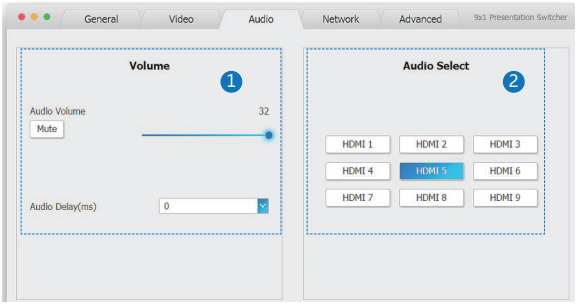
1) Select output screen mode.
2) When you have selected output screen mode, then you can select output screen corresponding input signal source. (The order is from left to right and from top to bottom)

Video mode



1) Set the video picture interface, it contains Contrast set, Brightness set, Hue set, Saturation set, H Size set and V Size set.
2) Select output Resolution and Aspect Ration
3) Set EDID

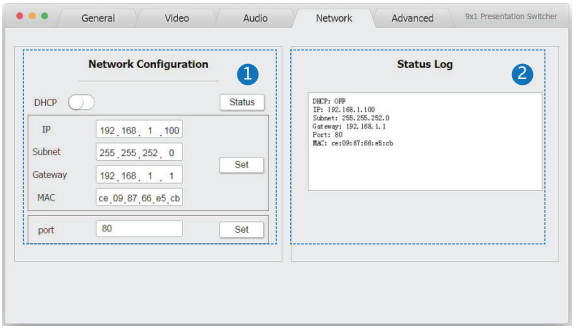
Audio mode



1) Set volume: Adjust the volume or select the audio delay (ms)
2) Audio Select: Select the output audio corresponding HDMI input signal source.

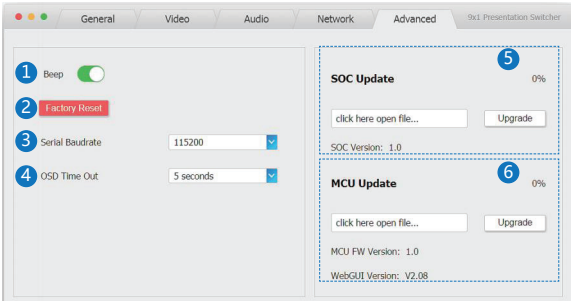
Specifications are subject to changes without notice.

Network mode



1) Network Configuration DHCP switch, Status button: Obtian the network configuration information, including IP address, Subnet, Gateway and MAC address
   Set port: Set TCP/IP port.
2) Status Log: Display the Network Configuration information

Advanced mode



1) Beep: Buzzer switch
2) Factory Reset: Click this button to reset factory set
3) Serial Baudrate: Select the serial baudrate
4) OSD Time Out: Select the OSD display time
5) SOC Update: SOC chip update
6) MCU Update: MCU version update

User Operation Guide

SYSTEM OPERATIONS

RS232 commands

System Settings Commands

Command Example	Description	Command Feedback
help!	check all commands	
help cmd1!	check one command ex:help mode! Check how to use mode command	
s factory reset!	Return to factory reset setting	factory reset
r version!	Read current firmware version	1
s lock on!	Lock on the button control	set lock on
s lock off!	Lock off the button control	set lock off
r lock!	Read the button lock status	lock on or lock off
s beep on!	Enable the switcher Beep	set beep on
s beep off!	Disable the switcher Beep	set beep off
s osd time 1!	Set OSD time out (1: 5seconds, 2: 10seconds,3: 15seconds , 4: 20seconds, 5: 25seconds , 6: 30seconds)	set osd time 1:5seconds
r ip mode!	Read IP mode	ip mode 1:Static
s ip mode 1!	Set IP mode at Static (1:Static,2:DHCP)	set ip mode 1:Static
r ip addr!	Read IP address	ip addr 192.168.1.255
s ip addr 192.168.1.255!	Setup IP address at 192.168.1.255	set ip addr 192.168.1.255
r subnet!	Read subnet	subnet 255.255.255.252
s subnet 255.255.255.252!	Set subnet at 255.255.255.252	set subnet 255.255.255.252
r gateway!	Read gateway	gateway 192.168.1.1
s gateway 192.168.1.1!	Setup gateway at 192.168.1.1	set gateway 192.168.1.1
r port!	Read control port	port 8000
s port 8000!	Set control port at 8000	set port 8000
r osd time!	Read OSD time out	osd time 1:5seconds
s baudrate 6!	1: 4800, 2: 9600, 3: 19200, 4: 38400, 5: 57600, 6: 115200	set baudrate 6:115200
r baudrate!	Read baudrate	baudrate 6:115200

**Specifications are subject to changes without notice.*

Video Control Commands

Command Example	Description	Command Feedback
s mode 4!	Setup output mode:(1:one image;2:two images 1;3:two images 2; 4:four images 1;5:four images 2;6:four images 3;7:four images 4;8:nine images)	set display mode 4:Four split screen 1
r mode!	read the output mode	display mode 5:Four split screen 2
s {x} v {y}!	Switch x input to y output	Switch x input to y output
s output 2!	Setup output resolution at 3840x2160@30Hz (1:3840x2160@30Hz,2:1920x1080@60Hz, 3:1920x1080i@60Hz,4:1280x720@60Hz, 5.1360x768@60Hz,6.1024x768@60Hz, 7.Out display EDID native resolution	set resolution 2：1920x1080@60Hz
r output!	read the output resolution	resolution 2：1920x1080@60Hz
r contrast!	Read picture contrast status	set picture contrast 0
s contrast 0!	Setup picture contrast 0(range:0-100)	picture contrast 0
r brightness!	Read picture brightness status	picture brightness 0
s brightness 0!	Setup picture brightness 0(range:0-100)	set picture brightness 0
r hue!	Read picture hue status	picture hue 0
s hue 0!	Setup picture hue 0(range:0-100)	set picture hue 0
r saturation!	Read picture saturation status	picture saturation 0
s saturation 0!	Setup picture saturation 0(range:0-100)	set picture saturation 0
r aspect ratio!	Read current input source output picture	aspect ratio 1: 4:3
s aspect ratio 1!	Setup current input source output picture aspect ratio at 16:9 (2: 16:9 , 1: 4:3)	set aspect ratio 1: 4:3
r h size!	Read current input source output horizontal overscan value	h size -10
s h size X!	Set output horizontal overscan to (100+X)%(the default X value is 0 and the range is -10~10,the value is set for current input source.)	set h size -10
r v size!	Read current input source output vertical overscan value	v size -10
s v size X!	Set output vertical overscan to (100+X)%(the default X value is 0 and the range is -10~10,the value is set for current input source.)	set v size -10
r edid!	Read switcher input port EDID status	edid mode 1: EDID1.4
s edid 1!	Setup input port EDID at HDMI1.4 standard (1: EDID1.4,2: EDID copy HDMI out)	set edid mode 1: EDID1.4

User Operation Guide

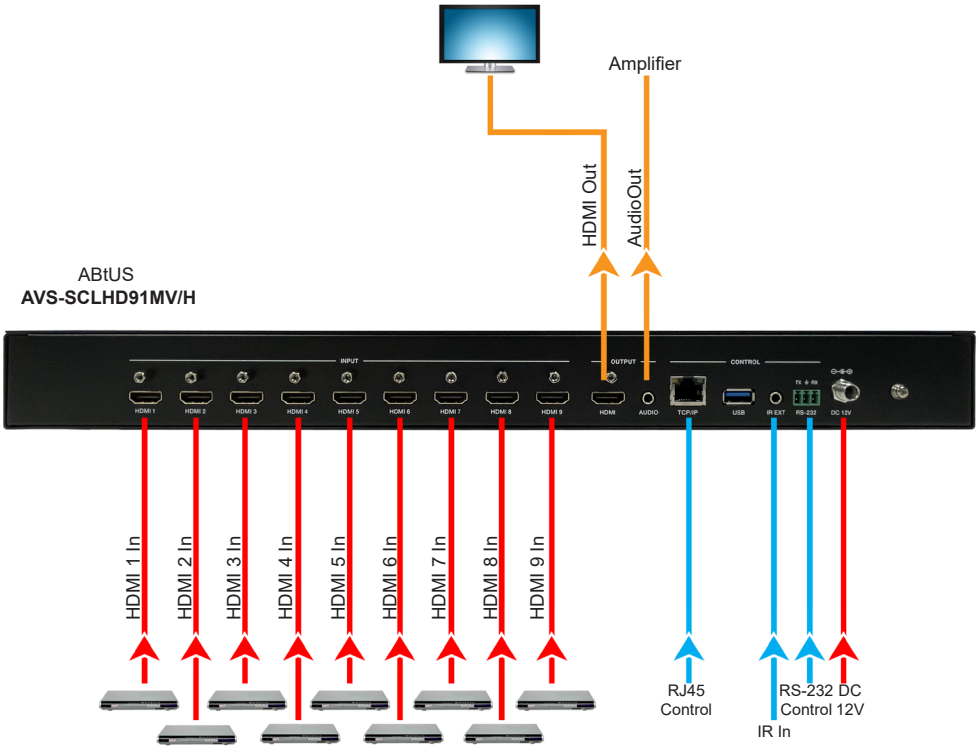
SYSTEM OPERATIONS

Audio Control Commands

Command Example	Description	Command Feedback
r out vol!	Read output audio volume	out vol 32
s out vol 0!	Setup output audio volume 0(0-32)	set out vol 32
s out vol up 1!	Increase output audio volume 1 level	set out vol up 1
s out vol down 1!	Decrease output audio volume 1 level	set out vol down 1
s audio mute on!	Mute source input audio	set audio mute on
s audio mute off!	Un-mute source input audio	set audio mute off
r hdmi output audio!	Read HDMI output audio source	hdmi1 output audio
s hdmi1 audio input!	Setup hdmi1 audio input: (hdmi1,hdmi2,hdmi3,hdmi4,hdmi5,hdmi6,hdmi 7,hdmi8,hdmi9)	set hdmi1 audio input
r audio delay!	Read audio delay time	audio delay 0
s audio delay 0!	Set audio delay time 0ms (0-200ms)	set audio delay 0

**Specifications are subject to changes without notice.*

DIAGRAM


Amplifier
HDMI Out
AudioOut
ABtUS
AVS-SCLHD91MV/H
INPUT
OUTPUT
CONTROL
HDMI 1
HDMI 2
HDMI 3
HDMI 4
HDMI 5
HDMI 6
HDMI 7
HDMI 8
HDMI 9
HDMI
AUDIO
TCP/IP
USB
IR EXT
RS-232
DC 12V
HDMI 1 In
HDMI 2 In
HDMI 3 In
HDMI 4 In
HDMI 5 In
HDMI 6 In
HDMI 7 In
HDMI 8 In
HDMI 9 In
RJ45
Control
IR In
RS-232 DC
Control 12V

SPECIFICATIONS

Inputs:	9 x HDMI Input 1 x USB-A Input 1 x 3.5mm IR receiver Input 1 x RS232 input (3 pin 3.5mm Phoenix Connector) 1 x RJ45 Input
Outputs:	1 x HDMI output 1 x 3.5mm audio output
Power Supply:	DC 12V 1A
Enclosure:	Metal
Product dimension (mm):	440 x 200 x 44.5
Product Weight:	2.26 Kg

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