



Model No: **SW-1102**

11 Input to 2 HDMI Output

Switcher & Scaler



Operating Instructions

Thank you for purchasing this Wyrestorm product.
Please read this instruction manual carefully
before use.



Introduction

With retrofit installations can be complex and difficult to manage due to, customer requirements for multiple devices to connect via single HDMI, with numerous formats and connections to be catered for. Wyrestorm Switchers and Scalers overcome that problem by providing multi-format plug and play solutions to get you connected quickly and easily.

The SW-1102 is a multi-function switcher and scaler that allows the conversion of up to 11 multi-format inputs to 2 HDMI outputs up to full HD 1080p video and HD audio.

- Inputs supported include:
- 1 x VGA source
- 1 x S-Video source
- 2 x AV sources with stereo audio
- 2 x YPbPr sources with analog audio
- 4 x HDMI sources (with one supporting 5.1 multichannel digital audio)
- 1 x DVI-I source with analog audio and digital audio via optical*

The SW-1102 also allows upscaling and switching from standard definition/high definition sources to resolutions up to 720p or 1080p, with both outputs working simultaneously - some VESA formats can be bypassed by using VGA and DVI-I ports.

The unit also automatically amplifies and equalizes signals to ensure the optimum HD transmission over the length of the HDMI cable without any loss in quality of picture or audio.

Whatever the project requirements, if multiple formats, devices and connectors are an issue, Wyrestorm Switcher and Scaler products can provide the perfect “Get out of jail” solution.

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Product Overview – SW-1102



■ Features

Inputs supported:

- 1 x VGA source
- 1 xS-Video source
- 2 x AV sources with stereo audio
- 2 x YPbPr sources with analog audio
- 4 x HDMI sources (with one supporting 5.1 multichannel digital audio)
- 1 x DVI-I source with analog audio and digital audio via optical*

*Should both analog and digital audio be connected, the digital audio has priority. Analog audio from the input is digitized and output to both the HDMI connection and the digital audio outs. HDMI outputs also have separate analog audio outputs.

- HDMI outputs also have separate analog audio outputs.
- Allows display to view any source at anytime
- Supports bypass function with VGA and DVI-I ports

- DVI-I supports both analog and digital formats with L/R and optical audio input
- Detached audio output by L/R and optical
- Delivers uncompressed digital video with zero signal loss
- Supports high definition resolutions 1080p, 1080i, 720p and standard video formats
- Scales to 720p or 1080p
- Can by-pass scaling and output as source
- 10-bit triple-ADC for RGB/YPbPr
- Dual switching option: IR control with remote handset and manual front panel control
- Additional Remote control function with RS232 connectivity

■ Safety Precautions

WyreStorm reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

Warning

To reduce the risk of fire, electric shock or product damage:



1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



6. Clean this apparatus only with dry cloth.



2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.



7. Unplug this apparatus during lightning storms or when unused for long periods of time.



3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



8. Protect the power cord from being walked on or pinched particularly at plugs.



4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



9. Only use attachments / accessories specified by the manufacturer.



5. Do not place sources of naked flames, such as lighted candles, on the unit.



10. Refer all servicing to qualified service personnel.

■ Package Contents

- ① Main unit. Wyrestorm SW-1102 Switcher & Scaler
- ② 5vDC mains power supply
- ③ 1x remote control handset (Battery type: CR2025 3V).
- ④ Product Manual - Printed and digital copies (digital copy also downloadable from website)
- ⑤ IR Extension cable

■ Panel Descriptions

Front



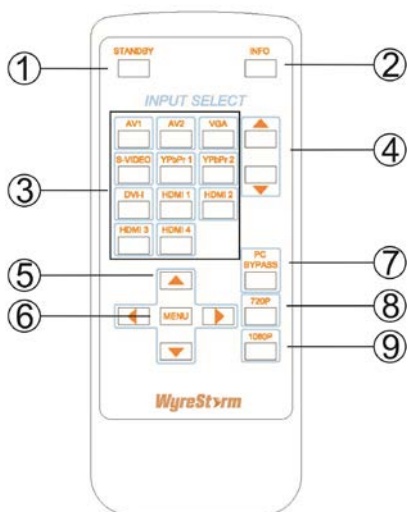
1. Inputs source LED indication numbered 1-11
 2. Input selector – turn left or right to scroll through connected sources
 3. Power standby
 4. Output resolution selection – press to scroll between 720p, 1080p and Bypass (Bypass option used for VGA and DVI inputs)
 5. IR window
 6. 720p selection indicator (LED lit when selected)*
 7. Power standby (LED lit when unit is in standby)
 8. 1080p selection indicator (LED lit when selected)*
 9. Power switch
- * Bypass selection indicated by neither LEDs lit

Rear



1. Composite AV inputs 1 & 2
2. Composite AV 1 & 2 stereo audio input (L/R)
3. VGA input
4. S-Video input
5. Component YPbPr inputs 1 & 2
6. Component YPbPr 1 & 2 stereo audio input (L/R)
7. DVI-I input
8. Optical audio input
9. Stereo audio (L/R)
10. HDMI Inputs 1-4
11. HDMI input including 5.1 audio support
12. HDMI Output 1 & 2
13. Analog audio output (L/R)
14. Optical audio output
15. IR Extension
16. 5vDC Power Input
17. RS232 Port

■ IR REMOTE




- ① **STANDBY:** press to enter and exit standby mode.
- ② **INFO:** view input and output messages from the SW-1102
- ③ **INPUT SOURCE:** press for direct selection of specific input source.
- ④ **UP/DOWN:** Scroll numerically through inputs.
- ⑤ **UP/DOWN/LEFT/RIGHT:** UP/DOWN to move highlighter bar to desired parameter in On-Screen Menu (OSM) menu. Press LEFT/RIGHT to increase/decrease setting value of selected parameters.
- ⑥ **MENU:** Activates OSM (on-screen menu)
- ⑦ **PC BYPASS:** Enters bypass mode (for VGA and DVI inputs)
- ⑧ **720p:** Select to directly output 720p resolution.
- ⑨ **1080p:** Select to directly output 1080p resolution.

■ (OSM) ON-SCREEN MENU


PICTURE	Contrast	0~100 of contrast level
	Brightness	0~100 of bright level
	Saturation	0~100 of saturation level
	Sharpness	0~100 of sharpness level
	Hue	0~100 of sharpness level
	picture mode	Standard/ dynamic/ soft /personal
	Scale	Full/ overscan/ underscan/ letterbox/ panscan
	NR	High/ mid /low/ auto/ off
	Reset	Reset the above parameters to default factory settings.
PC	Contrast	0~100 contrast level
	Brightness	0~100 of bright level
	H-position	0~100 of H position level
	V-position	0~100 of V position level
	H-size	0~20 of H size level
	V-size	0~20 of V size level
	Reset	Reset the above parameters to default factory settings.
OSD	H-position	0~100 of H position level
	V-position	0~100 of V position level
	Duration	5s/ 15s/ 30s/ 60s
	Halftone	0~8 of halftone level
	Reset	Reset the above parameters to the default factory settings

■ INPUT/OUTPUT FORMAT

INPUT	
AV/SV	PAL, NTSC
YPBPR/HDMI	480i, 480p, 576i, 576p, 720p@[50/60], 1080i@[50/60], 1080p@[50/60]
VGA/DVI(RGBHV)	800x600@60, 1024x768@60, 1152x864@60, 1280 x768@60, 1280 x960@60, 1280x1024@60, 1440 x900@60, 1400 x1050@60, 1600 x1200@60,
VESA-BYPASS	800x600@60, 1024x768@60, 1280x1024@60, 1280 x960@60, 1440 x900@60, 1600 x1200@60
OUTPUT	
AV/SV/YPBPR/HDMI/VGA/DVI	720p@[50/60] 1080p@[50/60]
VESA-BYPASS	800x600@60,1024x768@60,1280x1024@60, 1280 x960@60,1440 x900@60,1600 x1200@60

 **NOTE:** RS485 port and LAN port are for matrix control. The LAN port is connected to the computer via direct UTP and connected to the router via cross UTP.

■ Connection & Operation

- 1) Connect your multi-format digital or analog AV input sources to the SW-1102 Switcher and Scaler, ensuring device format, cables and connectors are supported by the unit and suitable for the chosen port.
- 2) Using good quality HDMI cables no longer than 15m/49ft in length, connect the SW-1102 to HDMI output devices ( such as HD-LCD display or HD-DLP).
- 3) Power on sources to be used – we recommend keeping unused inputs switched off so as not to interfere with normal display.
- 4) Connect the SW-1102 to the power supply included and choose your

display output.

- 5) Select sources by using the input selector or remote handset.– turn left or



NOTE1: VGA and AV2 share the same L/R audio input, S-video and YPBPR2 share the same L/R audio.

Attention

1. SW-1102 memory - when restarting the unit, input/output selection will resume as per previous selection.
2. Under bypass mode, when switching from VGA or DVI-I to other inputs, the output will be set to 1080p.
3. Output will be set to 1080p when powered from Bypass mode.
4. Bypass function is for VGA and DVI-I input s only.
5. Other than VESA, output will be automatically set to 1080p.



Attention: Insert / Extract cables gently.




NOTE2: SW-1102 accepts AV, SV, VGA, YPBPR, DVI-I and HDMI inputs.

■ Typical Application

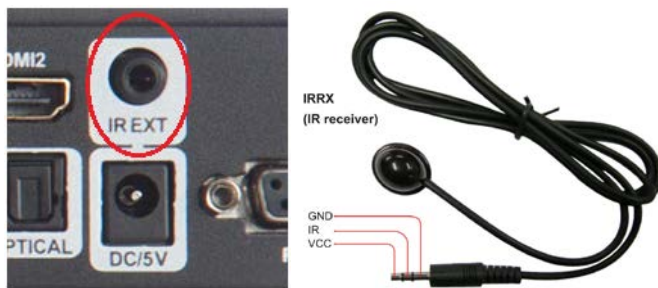


■ Specifications

Operating Temperature Range	-5 to +35°C (-41 to +95 °F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Output Video	HDMI1.2
Maximum Transmission Distance	<15m/49ft (If needed, HDMI extender is optional)
Power Consumption	15watts (Max.)
Power Supply	5VDC
Dimensions	430mmW×48mmH×200mmD/16.9"W ×1.9"H×7.9"D
Mass (Main unit)	2.4kgs/5.3lb

 **Note:** Specifications are subject to change without notice. Mass and dimensions are approximate.

■ IR extender control



Users can use the included IR receiver cable to change the IR receiver position should IR signals become obstructed by the location of the unit (such as positioned in a rack or cupboard).

If controlling the SW-1102 through the 1/8" (3.5 mm) input jack on the rear panel, connect the IR cable directly to the **IR EXT** port.

■ RS232 remote control.

Com port setting:

Baud rate	9600 bps
Data bits	8 bits
Parity	None
Stop bits	1 bit
Flow control	None

■ Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzine to clean this unit.

■ Product Service

● Provided Service

- 1) **Damage Requiring service:** The unit should be serviced by qualified service personnel if:
 - The DC power supply cord or AC adaptor has been damaged;
 - Objects or liquids have gotten into the unit;
 - The unit has been exposed to rain;
 - The unit does not operate normally or exhibits a marked change in performance;
 - The unit has been dropped or the cabinet damaged.
- 2) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- 3) **Replacement parts:** When parts need replacing ensure the service uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4) **Safety check:** After repairs or service, ask the service to perform safety checks to confirm that the unit is in proper working condition.

● Mail-In Service

When shipping the unit, carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and

provide a daytime phone and/or email address where you can be reached.

If repair is needed during the limited warranty period the purchaser will be required to furnish a sales receipt/proof of purchase indicating date of purchase, amount paid and place of purchase. Customer will be charged for the repair of any unit received without such proof of purchase.

● Warranty

If your product does not work properly because of a defect in materials or workmanship, Wyrestorm (referred to as “the warrantor”) will, for the length of the period indicated as below, **(Parts (2) Year, Labor(90) Days)** which starts with the date of original purchase (“Limited Warranty period”), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the “Labor” Limited Warranty period there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

● Warranty Limits and Exclusions

- 1) **This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage.** The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of

consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service Center or other Authorized Service, or damage that is attributable to acts of God.

- 2) **There are no express warranties except as listed under “limited warranty coverage”. The warrantor is not liable for incidental or consequential damages resulting from the use of this product, or arising out of any breach of this warranty.** (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service location, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)
- 3) **Parts and service, which are not covered by this limited warranty, are the responsibility of the purchaser.**



Thank you for your purchase.

Please contact us with your questions or comments.

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