



## User Manual

# 8x4 Composite Video/S-Video and Analog Audio Matrix Switcher With IR & RS 232 Control / RS 232 Driver for Win98/2000/XP **AT-SAV-84M**



FRONT



BACK



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## INTRODUCTION

Atlona Technologies' AT-SAV-84M is a 8x4 S-Video/Composite Video/Analog Audio Matrix Switcher designed to work as a switcher for multiple Audio/Video sources and displays. This Atlona unit is capable of switching Composite Video, S-Video and Stereo Audio signals between eight sources and four displays. Because it is a matrix switch, any or all of the 8 inputs can simultaneously be switched to any or all of the outputs. With a maximum bandwidth of 380MHz, this device will support sharp and highly defined video in multiple resolutions of up to 480i/576i. This unit has quick and easy installation. With manual, RS232, as well as IR Remote control options, Atlona's AT-SAV-84M Matrix Switcher is perfect for all Video equipment that uses S-Video signal such as Cable and Satellite receivers, VCRs, DVD Players, Set Top Boxes...etc.

## FEATURES

- Switches S-Video, Composite Video and Analog Audio between 8 sources and 4 displays.
- Matrix Switch: each input can be directed to any or all outputs at the same time
- 19" Rack mountable brackets
- Front LED displays
- S-video, composite video and stereo audio inputs and outputs
- AV Connectors could be used as component video for HDTV signal transfer
- Supports high resolutions: HDTV480p, 720p, 1080i, 1080p
- Supports RS232 interface control driver for Windows 98/2000/XP
- Gold plated RCA sockets for optimum signal transfer
- RS232 and manual Control
- IR Remote Control

## SPECIFICATIONS

Video Inputs	8 x Composite Video / 8 x S-Video
Audio Inputs	4x Stereo R/L, 40K Ω on RCA Connectors
Video Outputs	4 x Composite Video / 4 x S-Video
Audio Outputs	4x Stereo R/L, 40K Ω on RCA Connectors
Support Resolution	480p, 720p, 1080i60, 1080P
Video Bandwidth	>380MHz
Video Distortion	<1.2db (Standard +/- 3db)
Audio Input impedance	10K Ohms
Channel Isolation	>50db
S/N Ratio	>50db
Power Consumed	500mA Maximum @300mA
Power Source	12 Volts DC
RS232 Interface	9-pin
Net Weight	6lbs
Dimensions	17.32 " W x 7.87 "Dx1.73 "H

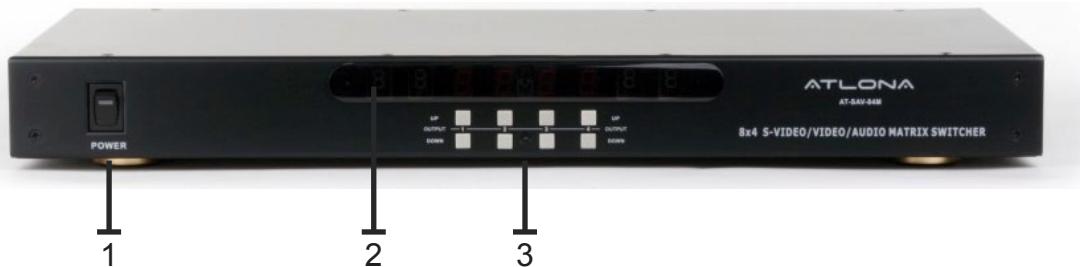
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## PACKAGE CONTENTS

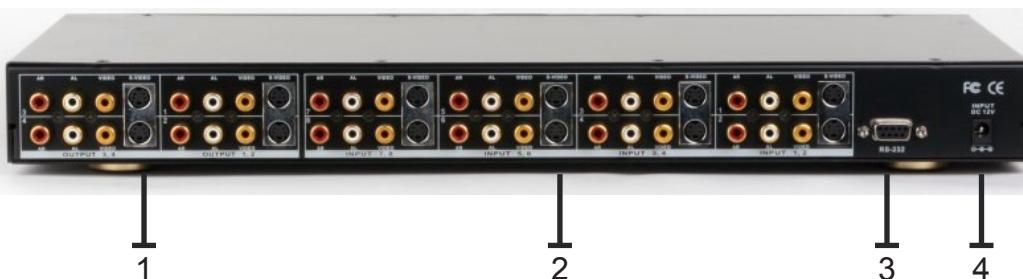
- 8x4 Matrix Switcher (AT-SAV-84M)
- Instruction Manual
- IR Remote Control
- RS232 Software
- Universal AC/DC power adapter: 12VDC ( 110-240V )
- 19-inch Rack Ears (pair)

## PANEL DESCRIPTIONS



### 1. Front Panel

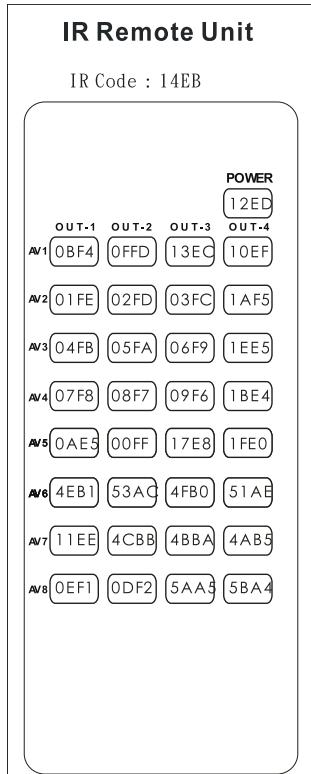
1. Power SWITCH: Power Unit ON/OFF
2. Channel Display: Channels 1-4 Displayed with LED
3. Channel Buttons: Press for desired Video Input/Output setting



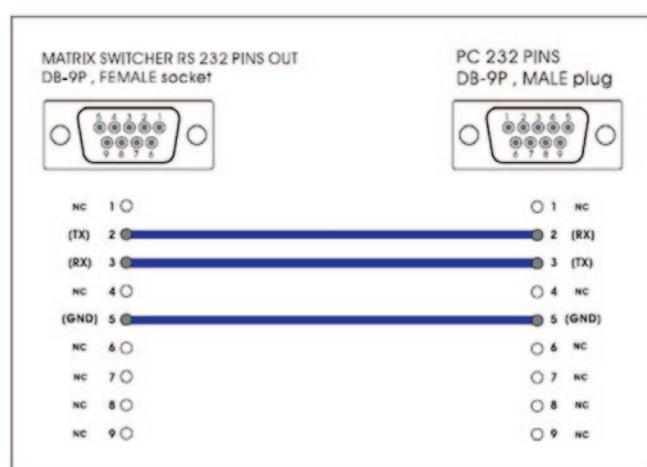
### 2. Rear Panel

1. Outputs: 4 x S-Video/Component Video/Stereo Audio( RCA).
2. Inputs : 8 x S-Video/Component Video/Stereo Audio(RCA).
3. RS-232 port
4. Power Input: 12V DC

## IR CODES



## RS-232 COMMANDS



2. Transmission Rate: 9600bps
3. Data Format: 8 data bits, No parity, 1 start bit and 1 stop bit
4. Flowing control : None
5. Commands are sent between the controller and as 8 ASCII bytes.
6. Controlling commands (from a controller to)

The first six ASCII bytes indicate the action of the command as ASCII format. The rest of bytes indicate the action of command as ASCII format.



Item	Command	Function	Description
1	SBSYSMON	Power on	System power on
2	SBSYSMOF	Power off	System power off
3	SBIx001C	hannel 1 setting	1 <sup>st</sup> output comes from xth input, x=(01, 02, ..., 06)
4	SBIx002C	hannel 2 setting	2 <sup>nd</sup> output comes from xth input, x=(01, 02, ..., 06)
5	SBIx003C	hannel 3 setting	3 <sup>rd</sup> output comes from xth input, x=(01, 02, ..., 06)
6	SBIx004C	hannel 4 setting	4 <sup>th</sup> output comes from xth input, x=(01, 02, ..., 06)
7	SBSYSMLK	Locked toggle On	Is locked toggle on. When Locked on all status are changed by RS232 only
8	SBSYSMUK	Locked toggle Off	Is locked toggle off. When Locked off all status are changed by RS232 only
9	SBALLRST	Reset	Is reset and every output Comes from 1 <sup>st</sup> input.
10	SBASKSTA	Ask Status	Request status information

## 7. Feedback commands (from a controller)

The 8 ASCII feedback commands are send after receiving the command from a controller

Item	Command	Function	Description
1	SBALONAK	Power on	Responses the system power. On command to the controller
2	SBALOFAK	Power off	Responses the system power. Off command to the controller
3	SBUDxx01	Channel 1 updated	Changes the 1 <sup>st</sup> output signal. xx is the selected source xx=(01, 02, ..., 06)
4	SBUDxx02	Channel 2 updated	Changes the 2 <sup>nd</sup> output signal. xx is the selected source xx=(01, 02, ..., 06)
5	SBUDxx03	Channel 3 updated	Changes the 3 <sup>rd</sup> output signal. xx is the selected source xx=(01, 02, ..., 06)
6	SBUDxx04	Channel 4 updated	Changes the 4 <sup>th</sup> output signal. xx is the selected source xx=(01, 02, ..., 06)
7	SBSYSLOK	Lock on	Is locked on
8	SBSYSULK	Lock off	Is released
9	SBRSTACK	Reset	Responses the reset command.
10	SBSTATAK	Status acknowledge	Responses the ask status Command to the controller

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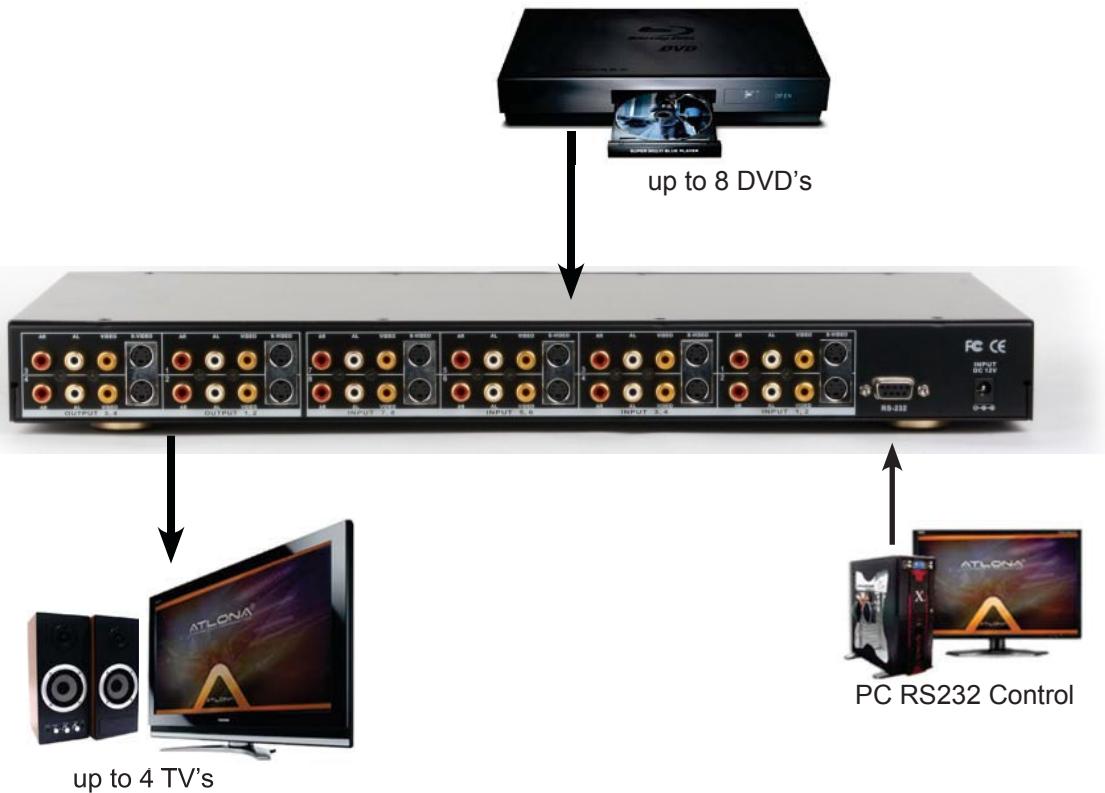
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Remark: The device responds to one feedback command for every request except the <SBASKATA> . After the device receives <SBASKATA>, it will send the 10th, 1/2th, IN/OUT state, 7/8th command sequentially.

Note: Responses IN/OUT state command: SBUD0000XXYY

input port XX=> (01, 02,..., 06)  
output port YY=> (01, 02, ..., 06)

## INSTALLATION



1. Switch off all devices, including monitors.
2. Connect all sources to the Desired Video/Audio Inputs
3. Connect all displays to desired Audio/Video Outputs
4. Plug in 12V DC power supply.
5. Power on the monitors.
6. Power on the sources.
7. Power on AT-SAV-84M



## SAFETY INFORMATION

### Safeguards



To reduce the risk of electric shock, do not expose this product to rain or moisture



Do not modify the wall plug. Doing so will void the warranty and safety features.



If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.



This equipment should be installed near the socket outlet and the device should be easily accessible in the case it requires disconnection.

### Precautions

FCC regulations state that any unauthorized changes or modifications to this equipment, not expressly approved by the manufacturer, could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product, or cause fires.

In the event of an electrostatic discharge this device may automatically turn off. If this occurs, unplug the device and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements, fish tanks, and swimming pools.

Use only accessories recommended by Atlona to avoid fire, shock, or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning and not cleaning fluid or aerosols. Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

Never open, remove unit panels, or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-SAV-84M. Opening the product will void the warranty.

Do not attempt to service the unit. Disconnect the product and contact your authorized Atlona reseller or contact Atlona directly.

## WARRANTY

### Limited Warranty

Atlona Technologies warrants that (a) its products (the AT-SAV-84M) will perform substantially in accordance with the accompanying written materials for a period of 3 years from the date of receipt and (b) that the product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to customers that fall within those areas.

### Customer Remedies

Atlona Technologies' and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' decision, either return of the price paid for the product, repair, or replacement of the product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of the Customer's receipt. This Limited Warranty is void if failure of the product has resulted from accident, abuse, misapplication, or natural occurrence. In example but not limited to: power surges (electrical storms, local power outage), dropping the product (or items on the product), contact with fluids, and physical misconduct (i.e. kicking or punching). Any replacement product will be warranted for the remainder of the original warranty period.

### No other warranties

To the maximum extent permitted by applicable law, Atlona Technologies and its suppliers disclaim all other warranties, either expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with regard to the product and any related written materials. This Limited Warranty gives customer specific legal rights. Customers may have other rights depending on the jurisdiction.

### No liability for damages

To the maximum extent permitted by applicable law, in no event shall Atlona Technologies or its suppliers be liable for any damages arising out of the use of or inability to use this product, even if Atlona Technologies has been advised of the possibility of such damages. Such damages include but are not limited to: special, incidental, consequential, or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss. Atlona Technologies' and its suppliers' entire liability under any provision of this agreement shall be limited to the amount actually paid by you for the product. Some Jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damage. The above limitations may not apply to you in such jurisdictional cases.

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## ATLONA PRODUCT REGISTRATION

Thank you for purchasing this Atlona product. - We hope you enjoy it and will take an extra few moments to register your new purchase.

Registration creates an ownership record if your product is lost or stolen and helps ensure you'll receive notification of performance issues and firmware updates.

At Atlona, we respect and protect your privacy, assuring you that your registration information is completely secure. Atlona product registration is completely voluntary and failure to register will not diminish your limited warranty rights.

**To register go to:** <http://www.atlona.com/registration>