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8x8 COMPOSITE MATRIX SWITCH WITH STEREO AUDIO

AT-AV0808N

USER MANUAL

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INTRODUCTION

Atlona Technologies' AT-AV0808N is a true Matrix Switcher with Composite Video and Stereo Audio. This unit is equipped with 8 individual AV inputs and 8 individual AV outputs. Because it is a matrix switch, any input can route to any output; and the same input can route to all outputs or any other combination. The AT-AV0808N is applicable for connecting sources including: (VCRs, Camcorders, Video Game Consoles, DVDs, Satellite Receivers, Set Top Boxes, etc.) to desired displays such as: (HDTV, LCDs, Plasma Monitors, Video Projectors, etc.) Selection of inputs can be achieved manually through the Front Panel, an Infrared Remote Control or RS232 control.

FEATURES:

- Supports 8x inputs / 8x outputs A/V (Composite Video-Audio) Matrix Switcher
- Input/Output signal via Composite Video & Stereo Audio (Audio Right/Audio Left)
- Video Bandwidth 325MB
- Supports Component Video signal up to 1080p
- Supports NTSC or PAL video systems
- Compatible with all Composite Video devices, Plasma TV display and HDTV
- Various User Interface controls:

    Attached Window based control software for Desktop or NB control by RS232 port (drivers for win-95/98/2000/XP)
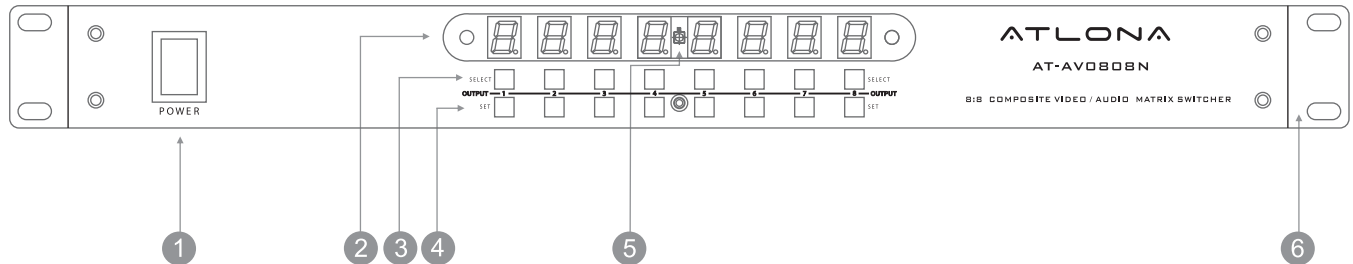
    Manual control via Front Panel buttons

    IR remote control

- 19 inch 1U Rack mountable type panel (mounts included)
- Power supply DC12Volt, Universal Type Switch 100~230VAC, 50/60Hz
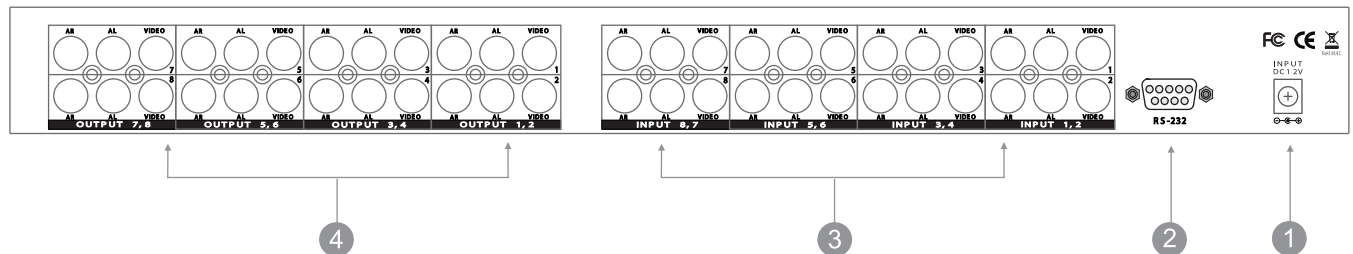
PACKAGE CONTENTS:

- Main unit AT-AV0808N
- Operating Instructions
- IR Remote Controller
- Rack-Ears (pair)
- RS232 control software package
- Power Supply 12VDC

1. Front Panel

1. POWER ON SWITCH - The power switch turns the unit on and off. The LED will illuminate red to indicate the switcher is ON and is receiving power
2. OUTPUT LED DISPLAY - Output channels 1 to 8 are shown when the LED display illuminates red to indicate that a video source is present on desired input.
3. INPUT SELECT BUTTONS - Separate select buttons for outputs 1 through 8 are provided for each destination. Select sources 1 through 8 Composite Video
4. SOURCE SETUP BUTTONS - Setup the input sources for channels 1 through 8
5. IR SENSOR - The IR sensor receives IR commands from the supplied remote controller.
6. Rack-EARS

2. Rear Panel

1. DC POWER INLET -   DC Jack - inner OD O 2.1mm (+)
                      Outside OD O 5.5mm (GND)
                      Power input - 12VDC, 2A (110/240v)
2. RS 232 CONNECTION - Remote port: DB-9pin Female connector
   RS 232 serial control is used for control purposes through computer or touch panel control.
3. INPUTS-1~8 COMPOSITE - STEREO AUDIO -
       Composite Video Via 1x RCA connector
       Stereo Audio via 2x RCA connectors
       Connect source of A/V (Composite Video/Stereo
       Audio) devise to 8x8 matrix switcher.

       Input 1~8 source signals:
       - Composite Video, 1x RCA Connectors
       - Stereo Audio (Audio Right/Audio Left), 2x RCA Connectors
4. OUTPUTS: 1 through 8 COMPOSITE - STEREO AUDIO -
       Video: Composite Video Via 1x RCA's
       Stereo Audio (Audio Right/Audio Left) Via 2x RCA connectors
       Note: With 3x RCA female connectors.

Connect signal of A/V (Composite Video/Stereo Audio) directly to Female RCA connector. This connector supports composite video & stereo audio to displays.

Input 1~8 port source signals:
- Composite Video, 1x RCA Connectors
- Stereo Audio (Audio Right/Audio Left), 2x RCA Connectors

Note: This unit can also be used for Component Video applicatiosn with full support of all HDTV resolutions up to 1080p. Color Coding for Component video application:

Composite A/V:		Component Video:
Yellow (Composite video)	⟶	Green
Red (Audio Right)	⟶	Red
White (Audio Left)	⟶	Blue

REMOTE CONTROL

Before making any connections to the AT-AV0808N, observe the following:
• The main power supply should match the label on the supplied plug-Pack (+/- 10%)
• Make sure the power switch is OFF
• Avoid powering equipment within a system from multiple power sources that may be separated by large distances
• Connect all sources with desired display
• Power up all source and displays
• For each destination output, select the appropriate input source by using the front panel input select buttons, supplied IR remote control, or through the RS-232 control.
• Upon powering up, the switcher will return to its last used setting
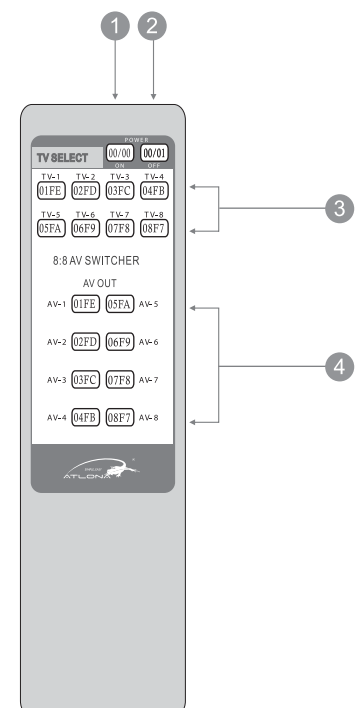
1, 2 - SWITCH POWER ON or OFF
    Controller with a separate power ON and OFF

3. OUTPUT 1-8 DISPLAYS SELECTION
    Output -1: TV-1   Composite Video/Stereo Audio HDTV/Projector Display
    Output -2: TV-2   Composite Video/Stereo Audio HDTV/Projector Display
    Output -3: TV-3   Composite Video/Stereo Audio HDTV/Projector Display
    Output -4: TV-4   Composite Video/Stereo Audio HDTV/Projector Display
    Output -5: TV-5   Composite Video/Stereo Audio HDTV/Projector Display
    Output -6: TV-6   Composite Video/Stereo Audio HDTV/Projector Display
    Output -7: TV-7   Composite Video/Stereo Audio HDTV/Projector Display
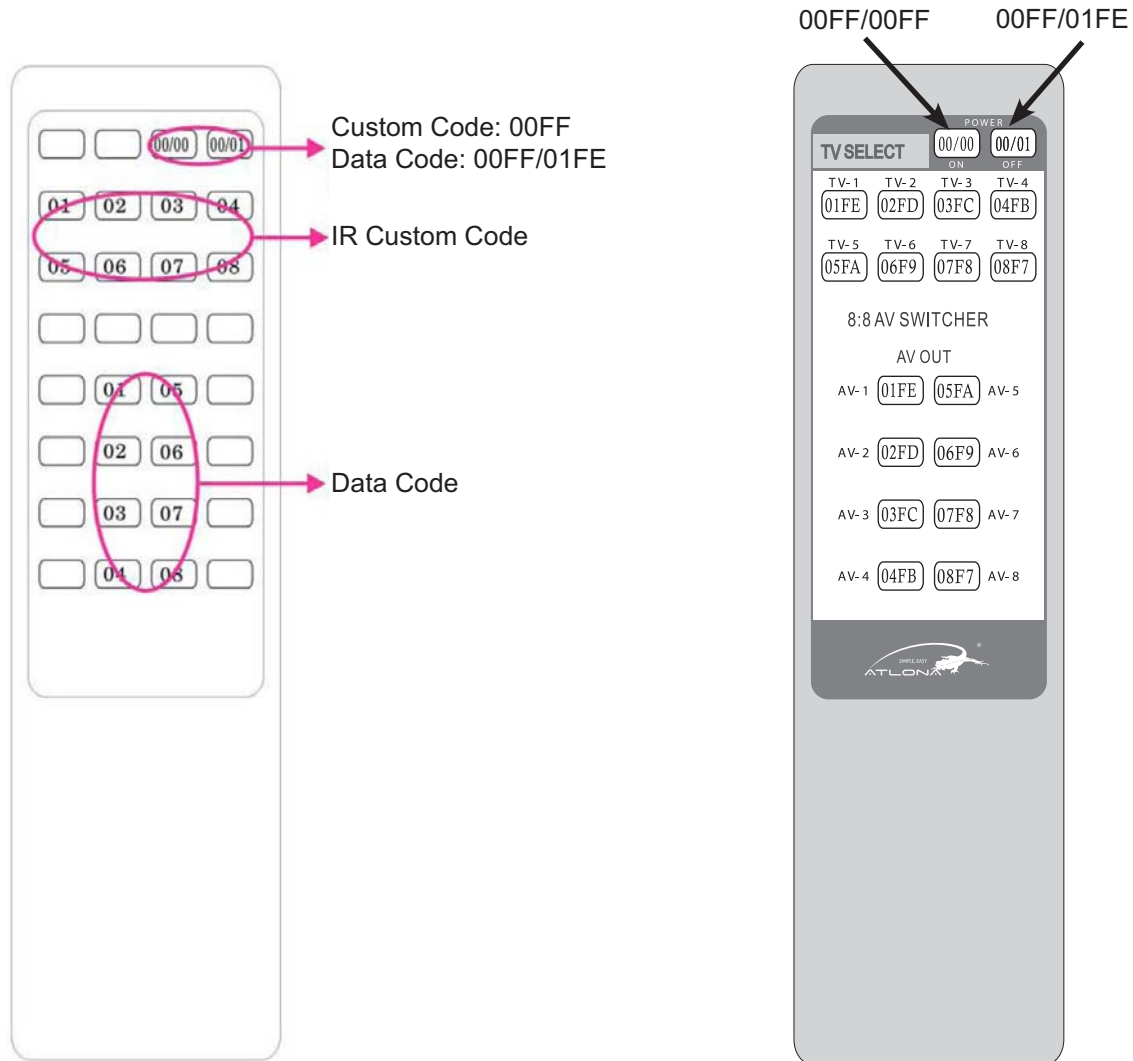   Output -8: TV-8   Composite Video/Stereo Audio HDTV/Projector Display

4. INPUT 1-8 SOURCES SETUP
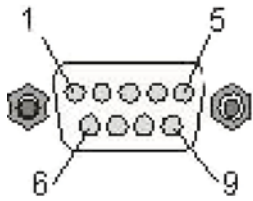   Input -1: AV-1   Composite Video-Stereo Audio Signal source device
    Input -2: AV-2   Composite Video-Stereo Audio Signal source device
    Input -3: AV-3   Composite Video-Stereo Audio Signal source device
    Input -4: AV-4   Composite Video-Stereo Audio Signal source device

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Input -5: AV-5   Composite Video-Stereo Audio Signal source device
Input -6: AV-6   Composite Video-Stereo Audio Signal source device
Input -7: AV-7   Composite Video-Stereo Audio Signal source device
Input -8: AV-8   Composite Video-Stereo Audio Signal source device

IR CODES

Custom Code: 00FF
Data Code: 00FF/01FE

IR Custom Code

Data Code

00FF/00FF   00FF/01FE

POWER

TV SELECT   00/00   00/01
                    ON   OFF

TV- 1	TV- 2	TV- 3	TV- 4
01FE	02FD	03FC	04FB

TV- 5	TV- 6	TV- 7	TV- 8
05FA	06F9	07F8	08F7

8:8 AV SWITCHER

AV OUT

AV- 1 01FE   05FA AV- 5

AV- 2 02FD   06F9 AV- 6

AV- 3 03FC   07F8 AV- 7

AV- 4 04FB   08F7 AV- 8

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Pin	RS-232	Definition
1	-	Not used
2	TX	Transmitter
3	RX	Receiver
4	-	Not used
5	GND	Ground
6	-	Not used
7	-	Not used
8	-	Not used
9	-	Not used

RS-232

Atlona matrix switcher can be controlled via RS-232 serial control port to allow control of this unit via PC or control panel. Serial communication parameters are 9600 baud, 8 bit, No Parity and 1 stop bit - this is often referred to as 9600 8N1.

When the unit recognises a complete command it will perform the requested action - there is no delimiter character required. The unit does not send out a message when a value is changed from the front panel or by IR control. If the unit needs to be controlled via the front panel in addition to the RS232 control, you should regularly poll the unit status to ensure the control system accurately reflectes the current settings

PROTOCOL COMMANDS

To Switch Inputs to Outputs
SBI0XO0Y- Where X is Output Number (1-8) and Y is Number (1-8)
Unit will respond with
SBUD0XOY- Where X is Output Number (1-8) and Y is Input Number (1-8)
Example : Send Input 8 to Output 3
SBUD08O3-Send
SBI08O03-Rcvd

RS-232 PROTOCOL COMMANDS

Standby Mode

Note: Turning the unit System Power Off over RS232 will blank the displays leaving only the Power Switch LED on. Hard resetting the unit when in System Power Off mode will return the unit to normal operation and unlock the front panel. Even while the unit is turned off by RS232 it will continue to accept and act upon switching commands. This allows you to set up a scene before soft powering on the unit and enabling the video outputs. The unit will still return status and change messages in response to commands sent while in System.

Power Off mode

SBSYSMON- Put system into Standby (Soft Power Off)
SBSYSMOF- Bring unit out of Standby (Soft Power On)
Unit will respond with
SBALOFAK- Unit is in Standby
SBALONAK- Unit is no longer in Standby
Example : Put Unit in Standby (Soft Power)
SBSYSMOF-SendS
BALOFAK-Rcvd

FRONT PANEL LOCK

Note : Hard resetting the unit will unlock the Front Panel controls.
SBSYSMLK- When front panel is locked, changes can only be made by Rs232
SBSYSMUK- Front Panel Unlock
Unit will respond with
SBSYSLOK- Front Panel has been Locked
SBSYSULK- Front Panel has been Unlocked
Example : Lock Front Panel Buttons
SBSYSMLK-Send
SBSYSLOK-Rcvd
UNIT RESET
SBSYSMLK- Reset every output to Input 1
Unit will respond with
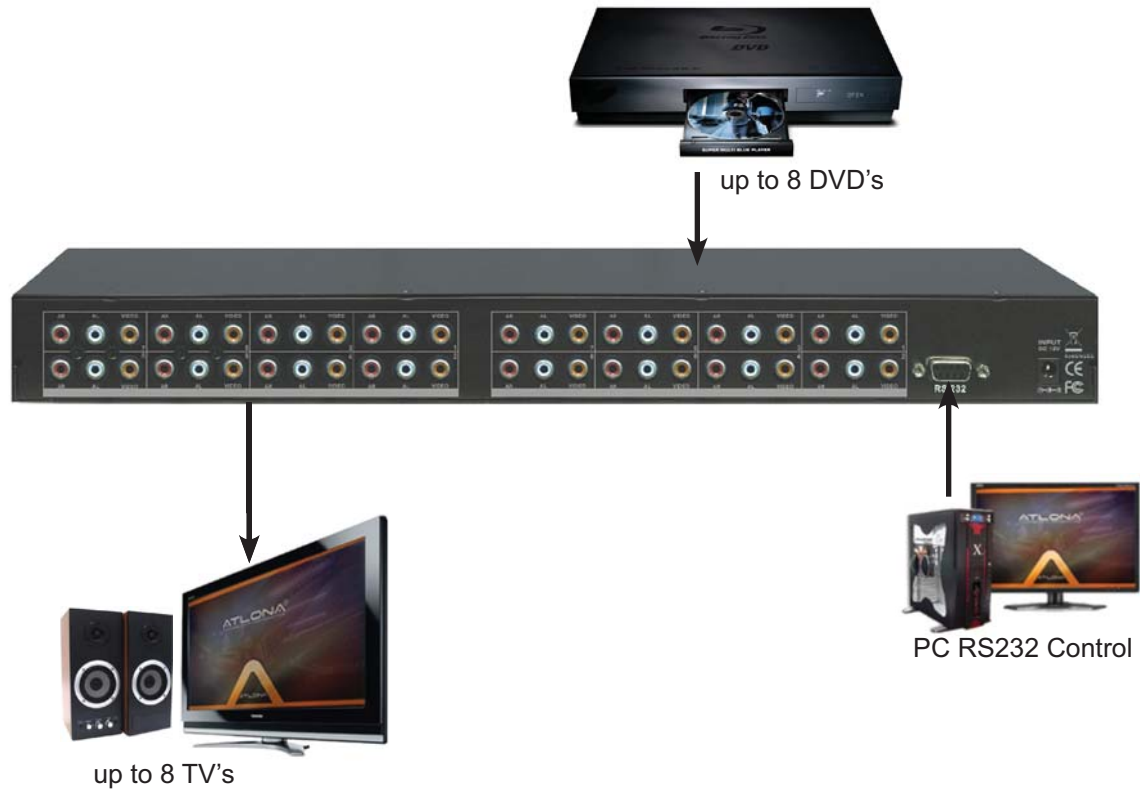**SBRSTACK**- Unit has reset each Output to Input 1
Example : Reset all outputs to Input 1
SBALLRST-Send
SBRSTACK-Rcvd

8x A/V (Composite Video) sources to 8x A/V Output Matrix Switcher

up to 8 DVD's

PC RS232 Control

up to 8 TV's

- 8 in To 8 out, A/V (Composite Video-Audio) Matrix Switcher
- I/O Signals: Video : Composite Video 0.5~1.0Vpp, 75 Ohms, RCA(Yellow)
- Stereo Audio (AR/AL), Via 2x RCA connector(Red/White)
- Video Bandwidth : 325MHz (-3db), 200mVp-p
- Video Supported: Higher resolution formats up to 1080P if used as component video switch
- Controls:, Front Panel Select buttons, IR remote & RS232
- Low all hostile crosstalk: -83 db@5MHz
- Audio Supported: Stereo Audio
- PC RS232 Control : RS232 interface serial via DRV on a PC
- Gain control: 60MHz 0.1 db gain flatness
- Safety Approvals: CE, FCC, RoHs (2002/95/EC).
- Dimensions (LWH): 17.32"x 7.87" x 1.73" (440mm x 200mm x 44mm)
- Power Supply: DC12V / 2A (consumption 1250mA Max)
- Use Universal Switch Type 50/60Hz,100~230 VAC
- Weight: 3.25 Kgs / 5.41 lb

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Safeguards

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

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

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

This equipment should be installed near the socket outlet and the device should be easily accessible in 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 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. Do not use cleaning fluid or aerosols, which could enter the unit and cause damage, fire or electrical shock. Some substances may also mar the finish of the product.

Never open or 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-AV0808N. Opening the product will void the warranty.

Do not attempt to service the unit. Instead disconnect it and contact your Authorized ATLONA reseller or contact ATLONA directly.

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1. LIMITED WARRANTY

Atlona Technologies warrants that (a) its products (the "Product") 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 Customer.

2. CUSTOMER REMEDIES

Atlona Technologies and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' option, either return of the price paid for the Product, or repair or replacement of the Product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of Customer's receipt. This Limited Warranty is void if failure of the Product has resulted from accident, abuse, or misapplication. Any replacement Product will be warranted for the remainder of the original warranty period or 3 year, whichever is longer.

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