

# VGA88

## 8X8 VGA MATRIX SWITCHER INSTALLATION AND OPERATION MANUAL





## IMPORTANT SAFETY INFORMATION



1. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
2. Read all documentation before operating your equipment. Retain all documentation for future reference.
3. Follow all instructions printed on unit chassis for proper operation.
4. Do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
5. Make sure power outlets conform to the power requirements listed on the back of the unit.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
8. Mains voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
9. Have gain controls on amplifiers turned down during power-up to prevent speaker damage if there are high signal levels at the inputs.
10. Power down & disconnect units from mains voltage before making connections.
11. Never hold a power switch in the "ON" position if it won't stay there itself!
12. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, weathersheet, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign matter.
14. Do not remove the cover. Removing the cover will expose you to potentially dangerous voltages. There are no user serviceable parts inside.
15. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
16. Do not connect the inputs / outputs of amplifiers or consoles to any other voltage source, such as a battery, mains source, or power supply, regardless of whether the amplifier or console is turned on or off.
17. Do not run the output of any amplifier channel back into another channel's input. Do not parallel- or series-connect an amplifier output with any other amplifier output. Australian Monitor Inc is not responsible for damage to loudspeakers for any reason.
18. Do not ground any red ("hot") terminal. Never connect a "hot" (red) output to ground or to another "hot" (red) output!
19. Non-use periods. The power cord of equipment should be unplugged from the outlet when left unused for a long period of time.
20. Service Information Equipment should be serviced by qualified service personnel when:
  - A. The power supply cord or the plug has been damaged.
  - B. Objects have fallen, or liquid has been spilled into the equipment
  - C. The equipment has been exposed to rain
  - D. The equipment does not appear to operate normally, or exhibits a marked change in performance
  - E. The equipment has been dropped, or the enclosure damaged.

THIS SAFETY INFORMATION IS OF A GENERAL NATURE AND MAY BE SUPERSEDED BY INSTRUCTIONS CONTAINED WITHIN THIS MANUAL

# INTRODUCTION AND CONTENTS

The AMAV VGA44 is an 8x8 VGA Matrix Switcher, supporting resolutions of up to 2048x2048. Designed for the demanding commercial audio-visual market, the VGA88 provides comprehensive video switching in an elegant, rack-mount package. The VGA88 provides eight VGA video input sources and eight VGA video destination outputs each featuring a 15 pin high density D connector. Any input source is routable to any combination of outputs; controllable by either front panel control, IR remote control or RS232 serial control. The VGA44 offers the flexibility and features demanded by any quality AV application.

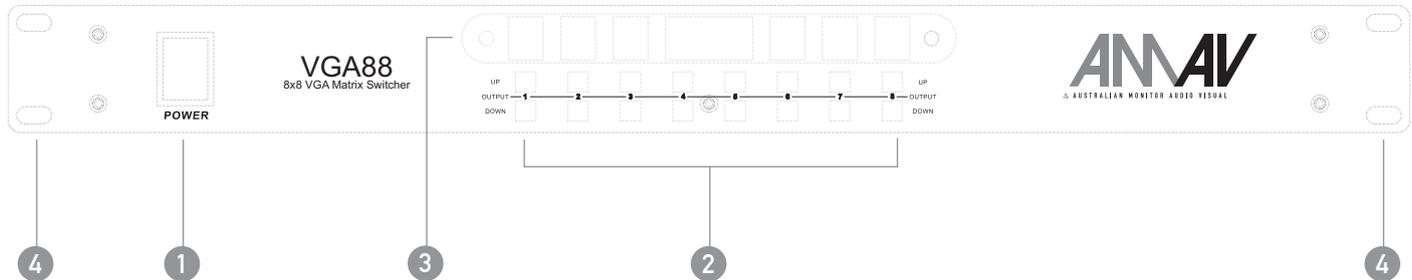
|                    |   |
|--------------------|---|
| INTRODUCTION       | 3 |
| FRONT & REAR PANEL | 4 |
| ADVANCED FEATURES  | 6 |
| OPERATION          | 7 |
| SPECIFICATIONS     | 8 |

AUS, EUR, USA  
Copyright 23 Feb 2007

|  |   |
|--|---|
|  <b>CAUTION</b><br>RISK OF ELECTRIC SHOCK<br>DO NOT OPEN                                    |    |
| <b>CAUTION:</b> TO REDUCE THE RISK OF ELECTRIC SHOCK,<br>DO NOT REMOVE COVER (OR BACK),<br>NO USER SERVICEABLE PARTS INSIDE,<br>REFER SERVICING TO QUALIFIED SERVICE PERSONAL. |    |
| <b>WARNING!</b><br>TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK<br>DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.   | Caution: To prevent electric shock do not use this (polarised) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure. To prevent electric shock, match wide blade of plug to wide slot, fully insert. |

# FRONT & REAR PANEL

## FRONT PANEL



### 1 POWER ON SWITCH

This power switch turns the unit on and off. The inbuilt LED will illuminate red to indicate that the switcher is ON and is receiving power.

### 2 SOURCE SELECT BUTTONS

A separate UP and DOWN source select button is provided for each destination output. A 7 segment LED display will indicate the input source number assigned to a destination output. Any input source can be assigned to any number of destination outputs

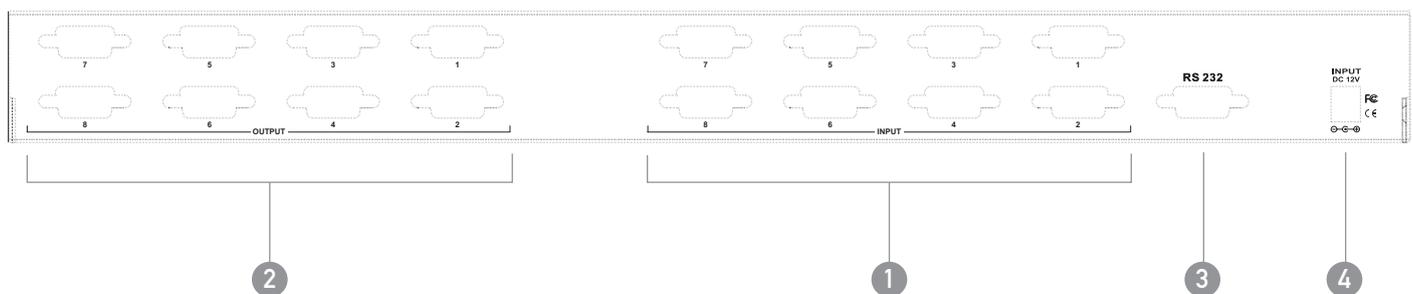
### 3 IR SENSOR

The IR sensor receives IR commands from the supplied remote control. To use the supplied remote control, point the remote control at the IR sensor

### 4 RACK EARS

The VGA88 features rack ears for mounting within a 19" Rack

## REAR PANEL



### 1 SOURCE INPUT CONNECTORS

Eight source inputs are provided, each featuring:

- One VGA video input on a 15 pin high density D connector

### 2 DESTINATION OUTPUT CONNECTOR

Eight destination outputs are provided, each featuring:

- One VGA video output on a 15 pin high density D connector

The selected input source is routed to the respective destination output.

### 3 RS232

Serial RS232 control port to allow for interfacing to a PC, Crestron or similar third party control system

### 4 DC POWER INLET

The VGA88 VGA matrix switcher is fitted with a DC power plug-pack input connector. Please ensure that the plug-pack used is of an approved type and is of sufficient current carrying capacity with the correct voltage and connector polarity  $\ominus$   $\bullet$   $\oplus$

# ADVANCED FEATURES

## RS232

The AMAV switcher can be controlled via the RS232 serial control port to allow for interfacing to a PC, Crestron or similar third party control system. The 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 from the front panel in addition to the RS232 control, you would need to regularly poll the units' status to ensure the control system accurately reflected the current settings.

## COMMANDS

To Switch Inputs to Outputs

**SBIØXØY** Where X is Output Number (1-8) and Y is Input Number (1-8)

Unit will respond with

**SBUDØXØY** Where X is Output Number (1-8) and Y is Input Number (1-8)

Example : Send Input 1 to Output 4

**SBIØ1ØØ4** - Send  
**SBUDØ1Ø4** - Rcvd

## 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

**SBALØFAK** - Unit is in Standby  
**SBALØNAK** - Unit is no longer in Standby

Example : Put Unit in Standby (Soft Power)

**SBSYSMOF** - Send  
**SBALØFAK** - 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

# OPERATION

Before making any connections to the VGA88, observe the following:

- > Ensure the mains voltage supply matches the label on the supplied plug-pack (+/- 10%)
- > Ensure that the power switch is OFF
- > Ensure that all system grounds (earth) are connected to a common point. Avoid powering equipment within a system from multiple power sources that may be separated by large distances

## OPERATION

- > Connect all audio video sources and destination equipment
- > Power up all source and destination audio-visual sources
- > Power up the VGA88 VGA matrix switcher
- > For each destination output select the appropriate input source by using the front panel UP and DOWN select button, the supplied IR remote control, or through the RS232 serial communications port

## REMOTE CONTROL

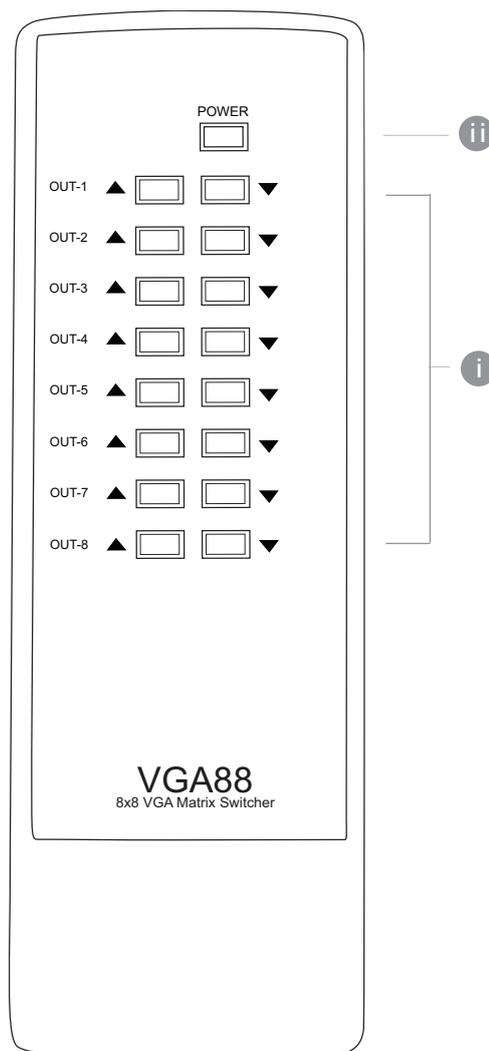
The AMAV VGA88 matrix switcher ships with a remote control. The remote control has the following functionality.

### i) Source Select Buttons

A separate UP and DOWN source select button is provided for each of the eight destination outputs. Each UP and DOWN button functions in the same manner as the VGA88 front panel control buttons. When either the UP or DOWN button is selected for an output zone, the next consecutive source is toggled through in numerical sequence

### ii) Power Button

Toggles the unit into, and out of, standby mode. In standby mode the matrix switcher will stop video routing. Standby mode is indicated by the illumination of the front panel power LED only



# SPECIFICATIONS

|                                 |   |
|---------------------------------|---|
| VIDEO INPUTS                    | 8x VGA video (HD-15 pin connectors)           |
| VIDEO OUTPUTS                   | 8x VGA video (HD-15 pin connectors)           |
| VIDEO BANDWIDTH                 | >450MHz                                       |
| VIDEO RESOLUTION                | 2048x2048 Maximum                             |
| VIDEO CROSSTALK                 | >60dB   |
| CONTROL                         | Front Panel, IR Remote, RS232                 |
| RS232 CONTROL                   | 9600 Baud, No Parity, 8 data bits, 1 stop bit |
| POWER                           | +12V DC, centre +ve, outer -ve, 550mA Max     |
| DIMENSION (H X W X D)           | 44mm x 440mm x 200mm                          |
| SHIPPING DIMENSIONS (H X W X D) | 98mm x 510mm x 283mm                          |
| SHIPPING WEIGHT                 | 2.2 kg  |

## AUSTRALIA AND NEW ZEALAND

[www.australianmonitor.com.au](http://www.australianmonitor.com.au)

### SYDNEY

(NSW & ACT SALES)

1 Clyde Street  
Silverwater  
NSW 2128  
Private Bag 149  
Silverwater NSW 1811  
Phone: (02) 9647 1411  
Fax: (02) 9648 3698  
Email:  
[nsw@audiotex.com.au](mailto:nsw@audiotex.com.au)

### MELBOURNE

(VIC & TAS SALES)

22/277  
Middleborough Road  
Box Hill VIC 3128  
PO Box 151 Blackburn  
South VIC 3130  
Phone: (03) 9890 7477  
Fax: (03) 9890 7977  
Email:  
[vic@audiotex.com.au](mailto:vic@audiotex.com.au)

### BRISBANE

(QLD SALES)

42 Commercial Road  
Fortitude Valley  
QLD 4006  
PO Box 871 Fortitude  
Valley QLD 4006  
Phone: (07) 3852 1312  
Fax: (07) 3252 1237  
Email:  
[qld@audiotex.com.au](mailto:qld@audiotex.com.au)

### ADELAIDE

(SA & NT SALES)

31 Walsh Street  
Thebarton  
SA 5031  
PO Box 157  
Hindmarsh SA 5007  
Phone: (08) 8352 4444  
Fax: (08) 8352 4488  
Email:  
[sa@audiotex.com.au](mailto:sa@audiotex.com.au)

### PERTH

(WA SALES)

3/11 Howe Street  
Osborne Park WA 6017  
PO Box 1281  
Osborne Park BC  
WA 6916  
Phone: (08) 9228 4222  
Fax: (08) 9228 4233  
Email:  
[wa@audiotex.com.au](mailto:wa@audiotex.com.au)

### AUCKLAND

(NZ SALES)

9C Piermark Drive  
Albany 0752  
New Zealand  
PO Box 300-512  
Albany 0752  
Phone: (09) 415 9426  
Fax: (09) 415 9864  
Email:  
[sales@audiotex.co.nz](mailto:sales@audiotex.co.nz)

## EUROPE / ASIA / MIDDLE EAST

[www.australianmonitor.com.au](http://www.australianmonitor.com.au)

### INTERNATIONAL SALES

1 Clyde Street Silverwater NSW 2128 Australia  
Private Bag 149 Silverwater NSW 1811  
Phone: (02) 9647 1411  
Fax: (02) 9648 3698  
Email: [international@audiotex.com.au](mailto:international@audiotex.com.au)

## USA / SOUTH AMERICA

[www.australianmonitor.com](http://www.australianmonitor.com)

### SENNHEISER ELECTRONIC CORPORATION

1 Enterprise Drive  
Old Lyme CT 06371 USA  
Phone: 1 860 434 9190  
Fax: 1 860 434 1759  
Email: [jalexander@sennheiserusa.com](mailto:jalexander@sennheiserusa.com)