RGB / COMPONENT VIDEO SWITCHER USER GUIDE

RGB SWITCHERS: AT-RGB0802 TO AT-RGB6464
RGB SWITCHERS W/AUDIO: AT-RGB0802A TO AT-RGB6464A

Contents

1.0 Safety Operation Guide

In order to ensure the credibility and the user's safety, please comply with the following items during installation, maintenance and operation of the switch.

1) The switch must be in stable position. Use only the power supply that comes with unit. Do not use an alternate as it may damage it.
2) Do not place the switcher near hot or cold surfaces or sources.
3) To avoid any damage by over heating, please keep the environment in good ventilation to radiate the heat when running the switcher.
4) The switcher should be turned off when it is not used.
5) Please do not attempt to take cover off the switcher for there is a high-voltage component inside that could cause electric shock.
6) Do not splash any liquid or chemical on or near the equipment.
7) Please make sure all the wiring are in working condition and are not cut or damaged.

1.1 Notice

This RGB Switchers User Manual can be used for other RGB matrix switcher models. This manual is only an instruction for operators, not for any maintenance usage. Any changes of functions and parameters since then will be informed separately. This manual is copyright Atlona Technologies. All rights reserved. No part of this publication may be copied or reproduced without the prior written consent of Atlona Technologies.

Please check the Atlona website for updates.
http://www.atlona.com

2.0 INTRODUCTION

The RGBHV series switcher is a high-performance professional switcher built for cross switching between multiple RGBHV or Component Video and Audio Signals. This series of matrix switchers were originally intended to be used for the switching of RGBHV signals, however with Component Video being a more popular and prevalent format, these switchers can be converted using the supplied BNC to RCA adapters. If audio needs to be matrixed separate from the video, we recommend using the models that are designated with "-A" in the product name. All switchers can be controlled by front panel controls, RS232 or IR.

Specifications/ Models	Video Inputs	Video Outputs	Audio Inputs	Audio Outputs	RS232 Inter-face
RGB1616-A	16	16	16	16	√
RGB2408	24	8	×	×	√
RGB2408-A	24	8	24	8	√
RGB2416	24	16	×	×	√
RGB2416-A	24	16	24	16	√
RGB2424	24	24	×	×	√
RGB2424-A	24	24	24	24	√
RGB3208	32	8	×	×	√
RGB3208-A	32	8	32	8	√
RGB3216	32	16	×	×	√
RGB3216-A	32	16	32	16	√
RGB3224	32	24	×	×	√
RGB3224-A	32	32	32	24	√
RGB3232	32	32	×	×	√
RGB3232-A	32	32	32	32	√

All modules above are for combined case design.

RGB4824	48	24	×	×	√
RGB4832	48	32	×	×	√
RGB4848	48	48	×	×	√
RGB6424	64	24	×	×	√
RGB6432	64	32	×	×	√
RGB6448	64	48	×	×	√
RGB6464	64	64	×	×	√
RGB9664	96	64	×	×	√
RGB9696	96	96	×	×	√
RGB12864	128	64	×	×	√
RGB12896	128	96	×	×	√
RGB128128	128	128	×	×	√

All modules above are for separated case design; audio case is the optional accessory. There will be wider bandwidth.

2.1 INSTALLATION

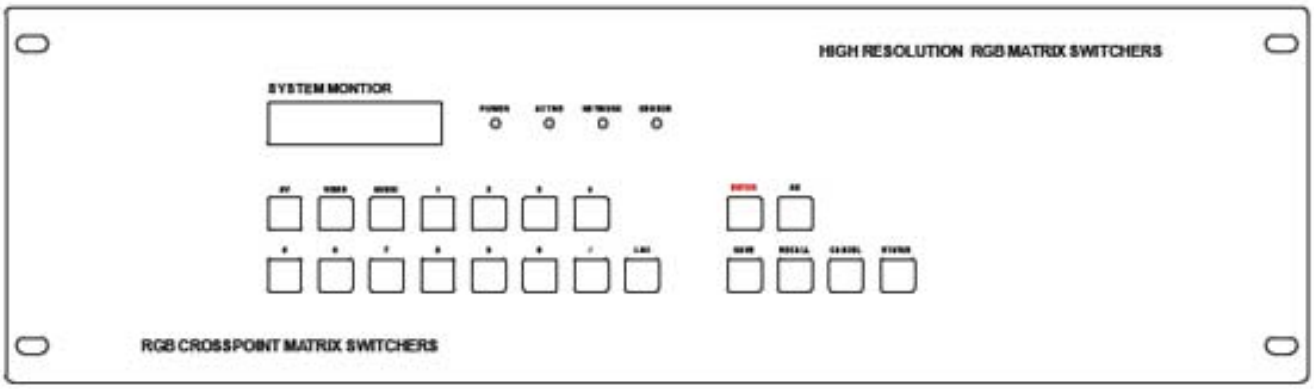
The RGB Switchers can be easily rack mounted using the rack mount ears located in the front of the unit. Secure the Switch with standard rack-hole screws. It is recommended to leave a 1U space between the units to have easy access for installation of the cables. When connecting the cables make sure all cables are connected correctly; if not, it could cause color loss or will not output a display signal.

Packaging Includes

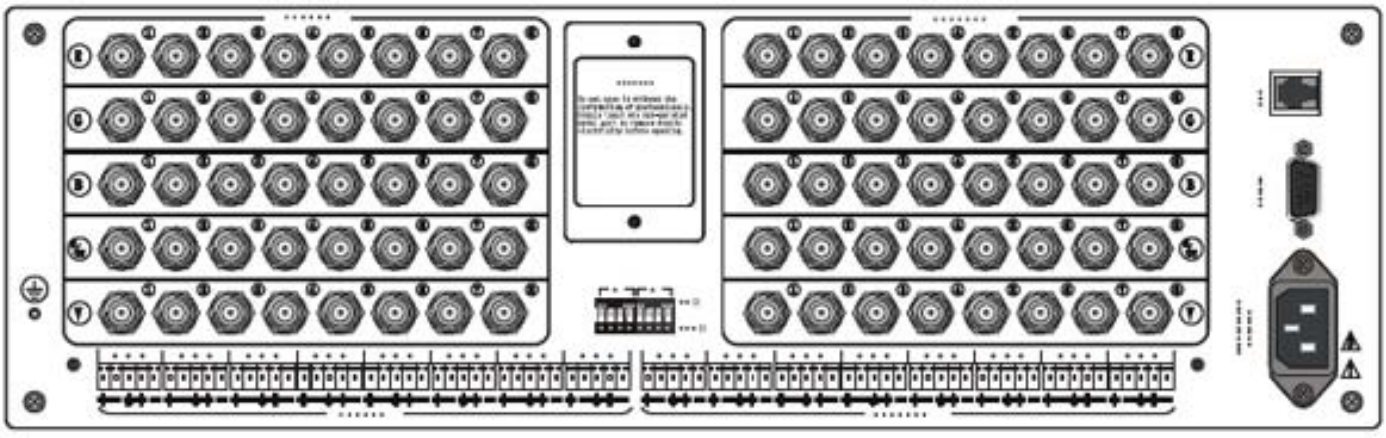
- RGB / Component Video Matrix Switcher
- RJ45 & RS-232 Communication Cables
- BNC to RCA adapters
- Power Supply Cord
- CD with Application SWITCHER 2.0
- User Manual and Quality Guarantee
- Remote Control

Front View and Rear View of the Product

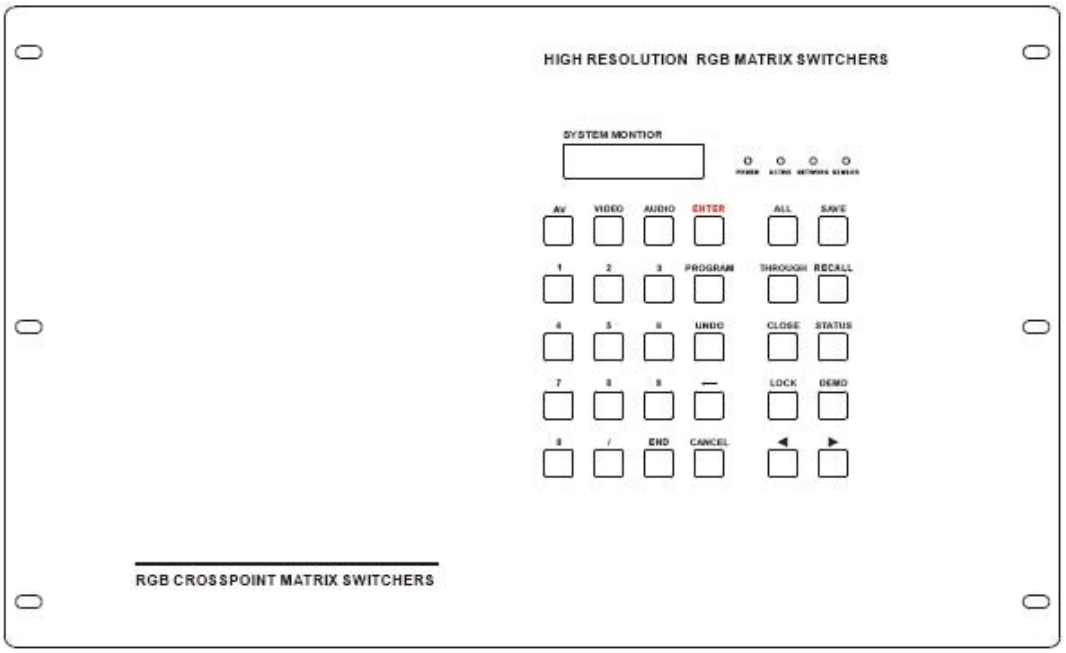
Front View of the RGB0802-A、RGB0804-A、RGB0808-A



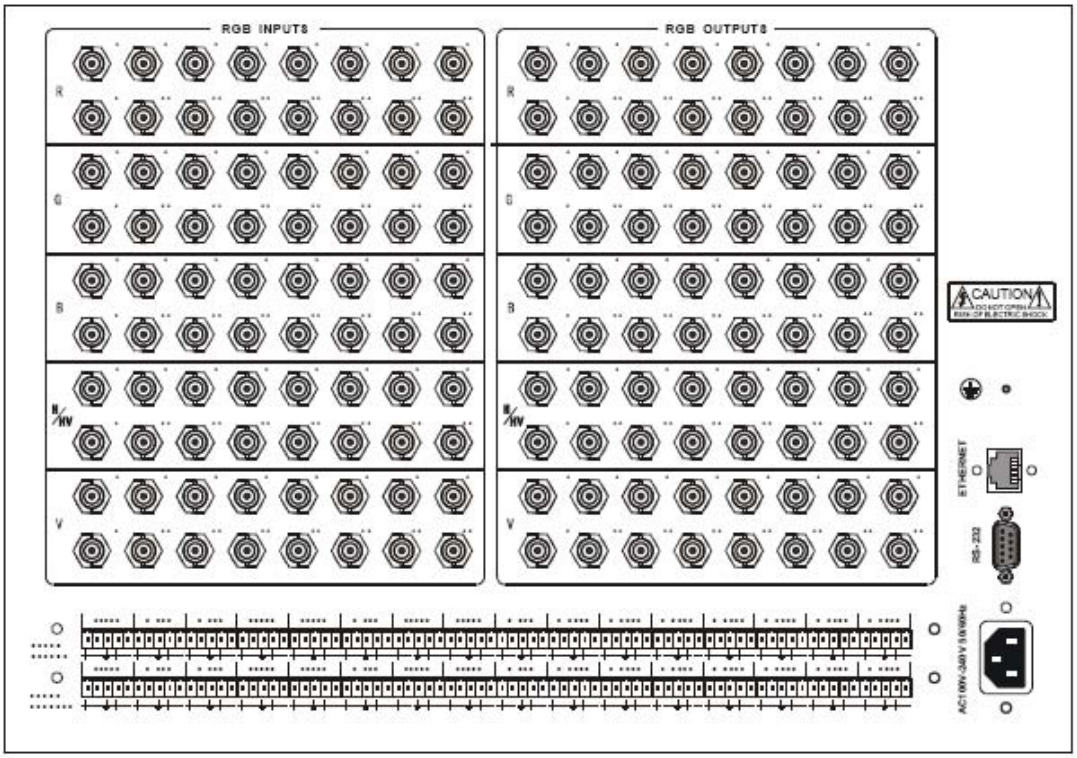
Rear View of the RGB0802-A、RGB0804-A、RGB0808-A



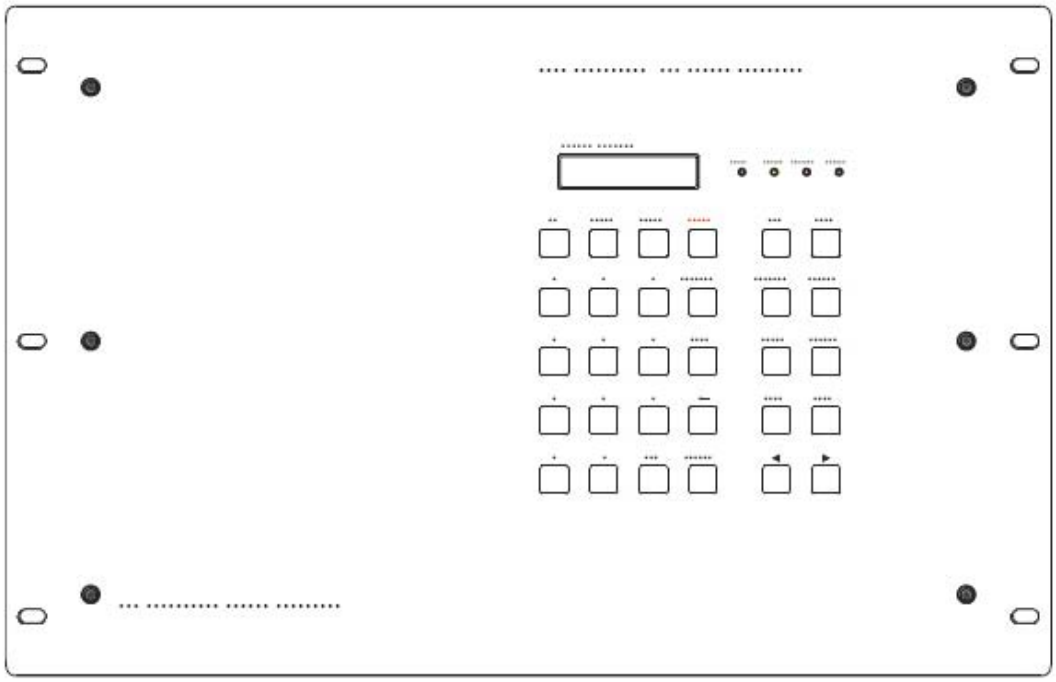
Front View of the RGB1604-A、RGB1608-A



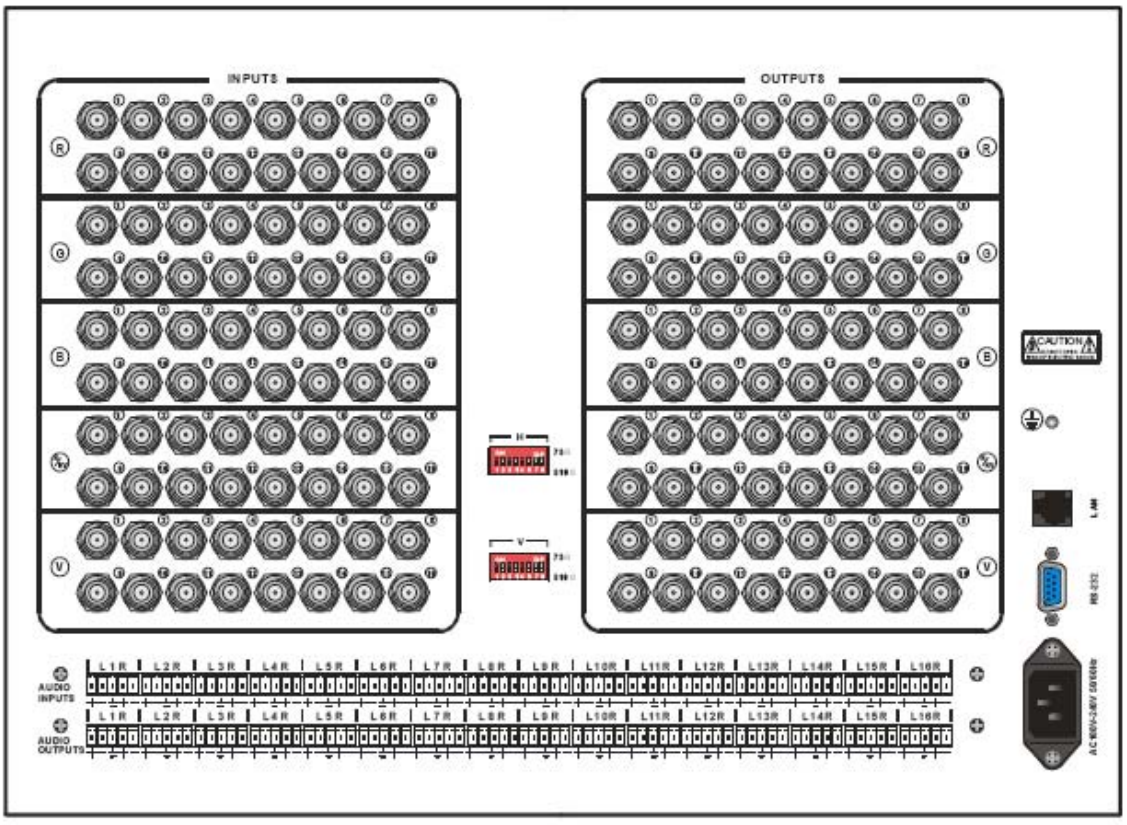
Rear View of the RGB1604-A、RGB1608-A



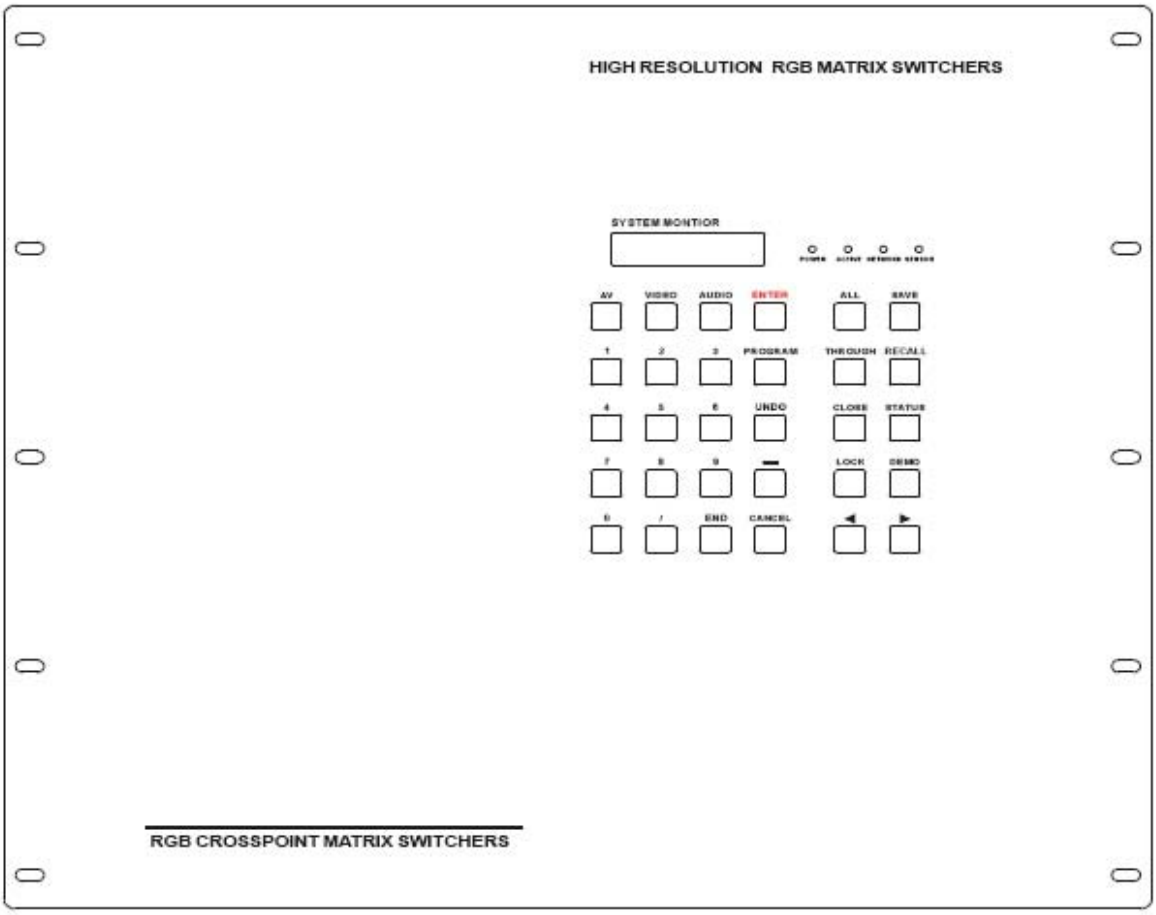
Front View of the RGB1616-A



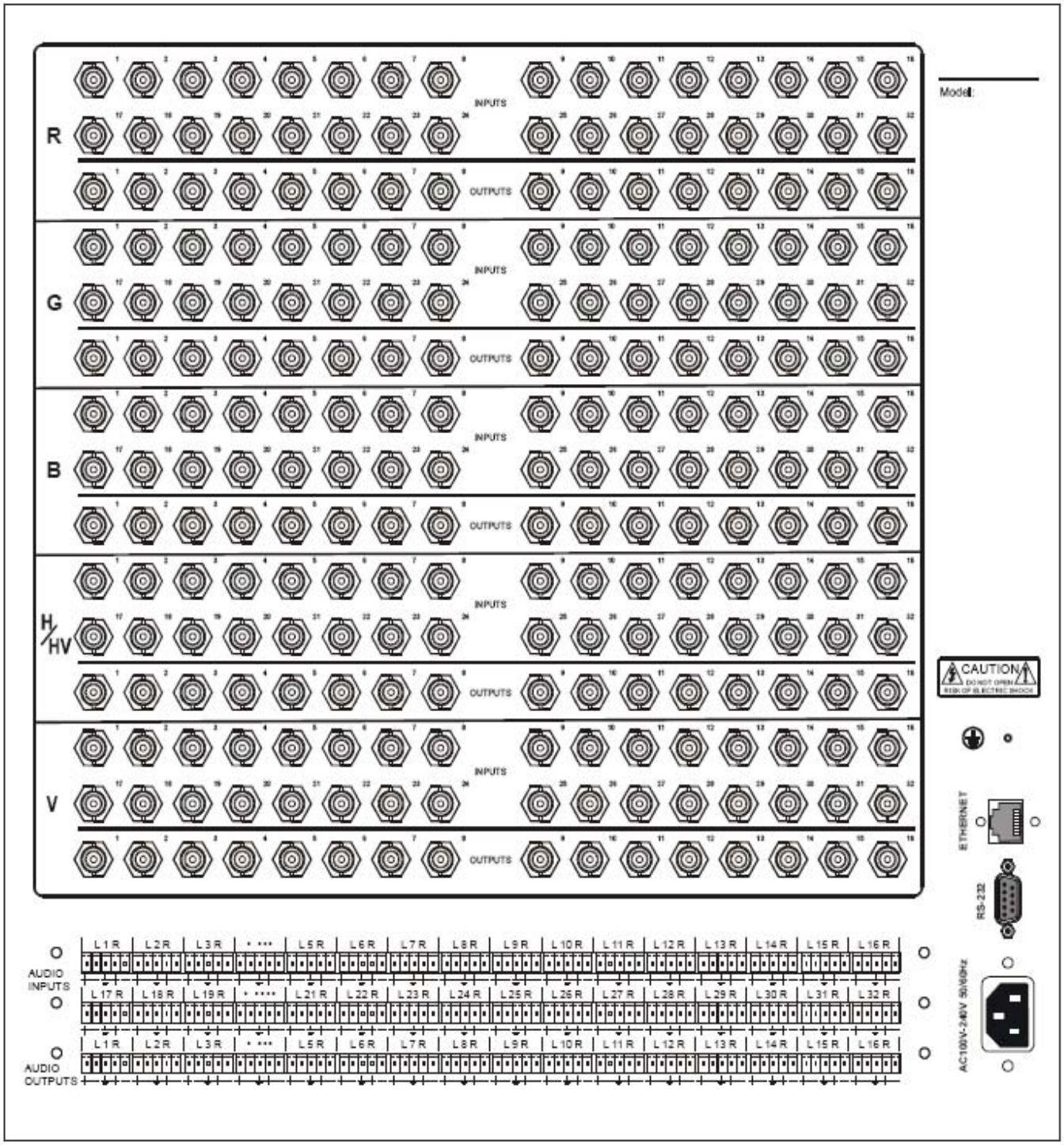
Rear View of the RGB1616-A



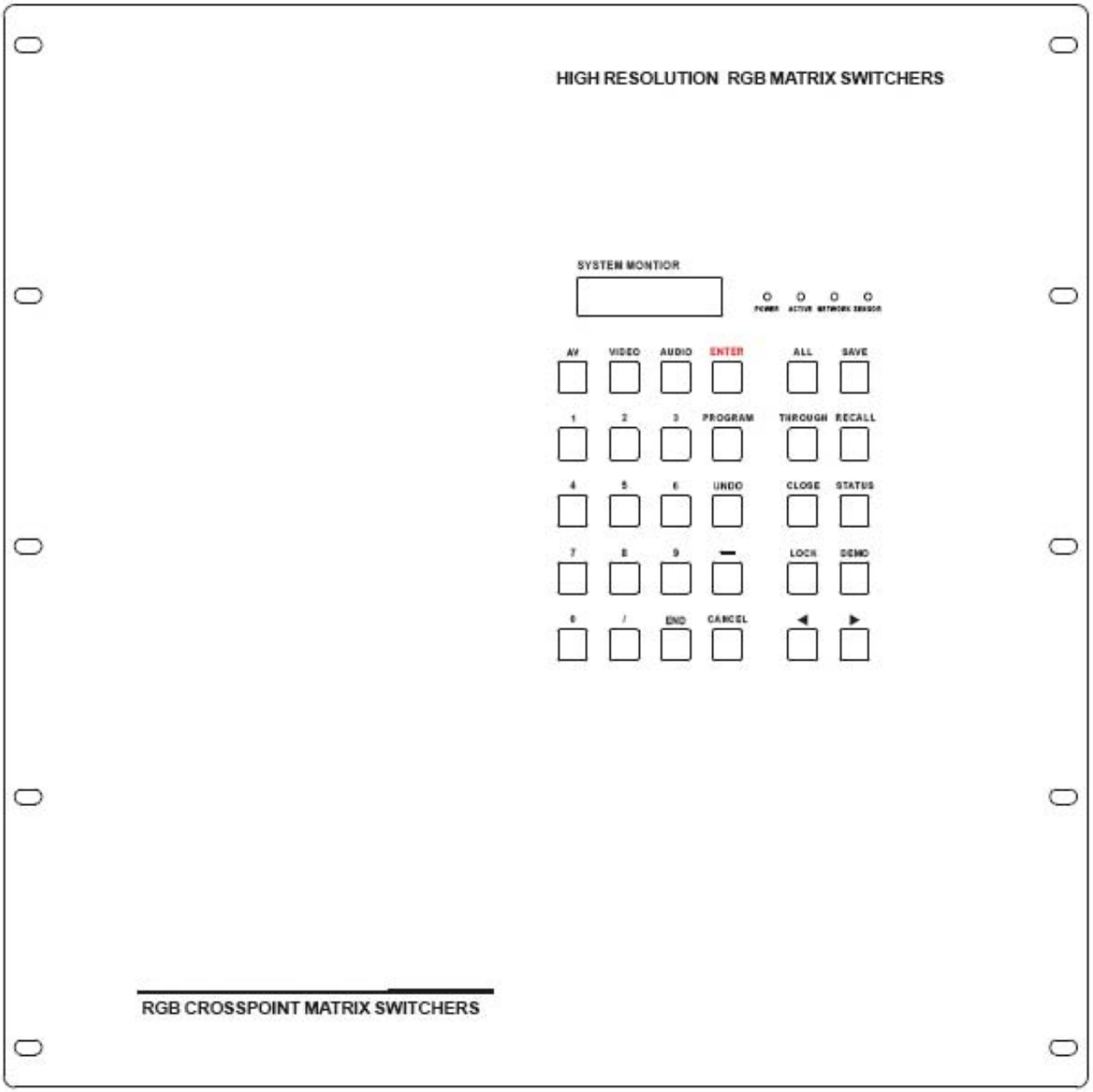
Front View of the RGB24/3208-A RGB24/3216-A



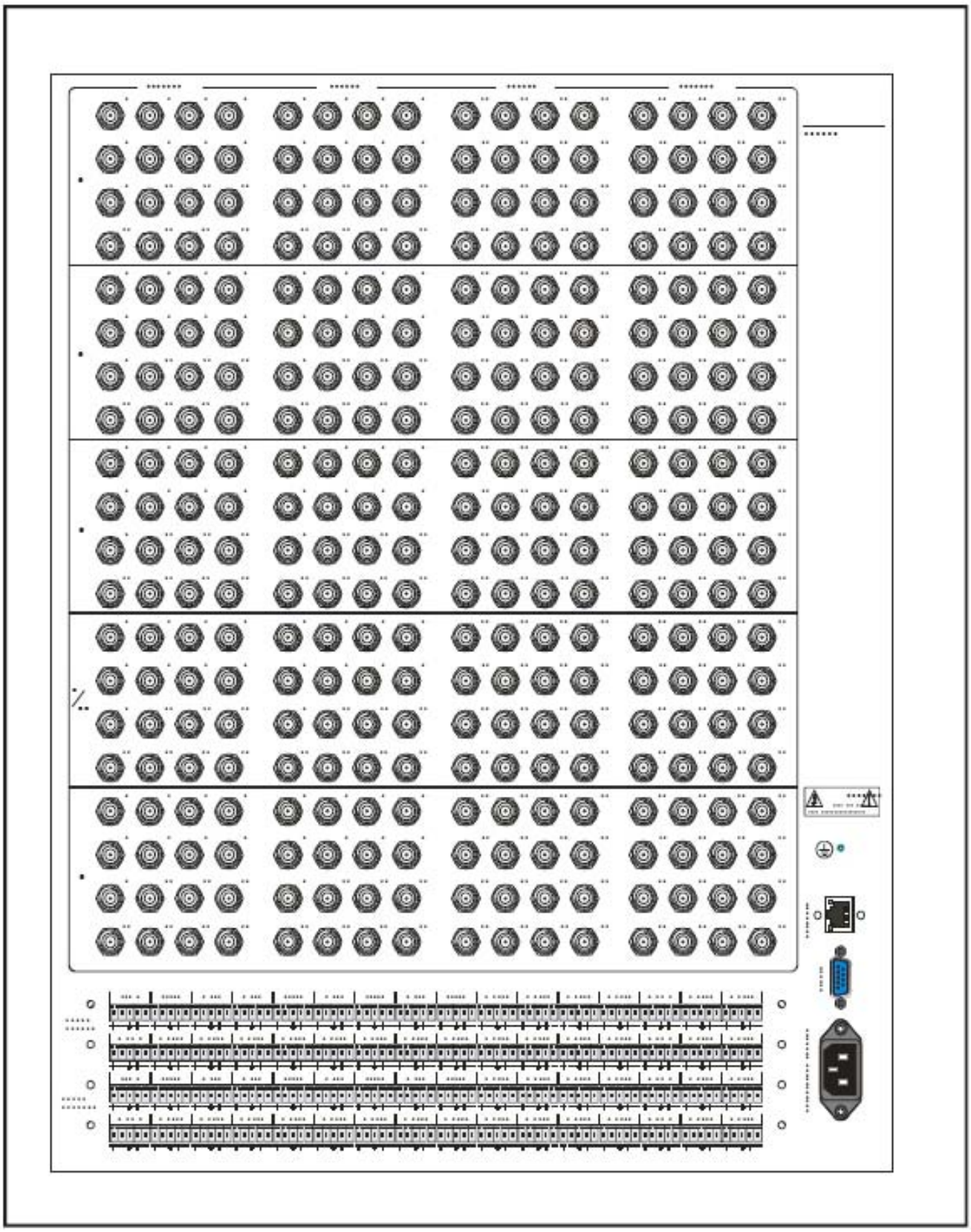
Rear View of the RGB24/3208-A、RGB24/3216-A



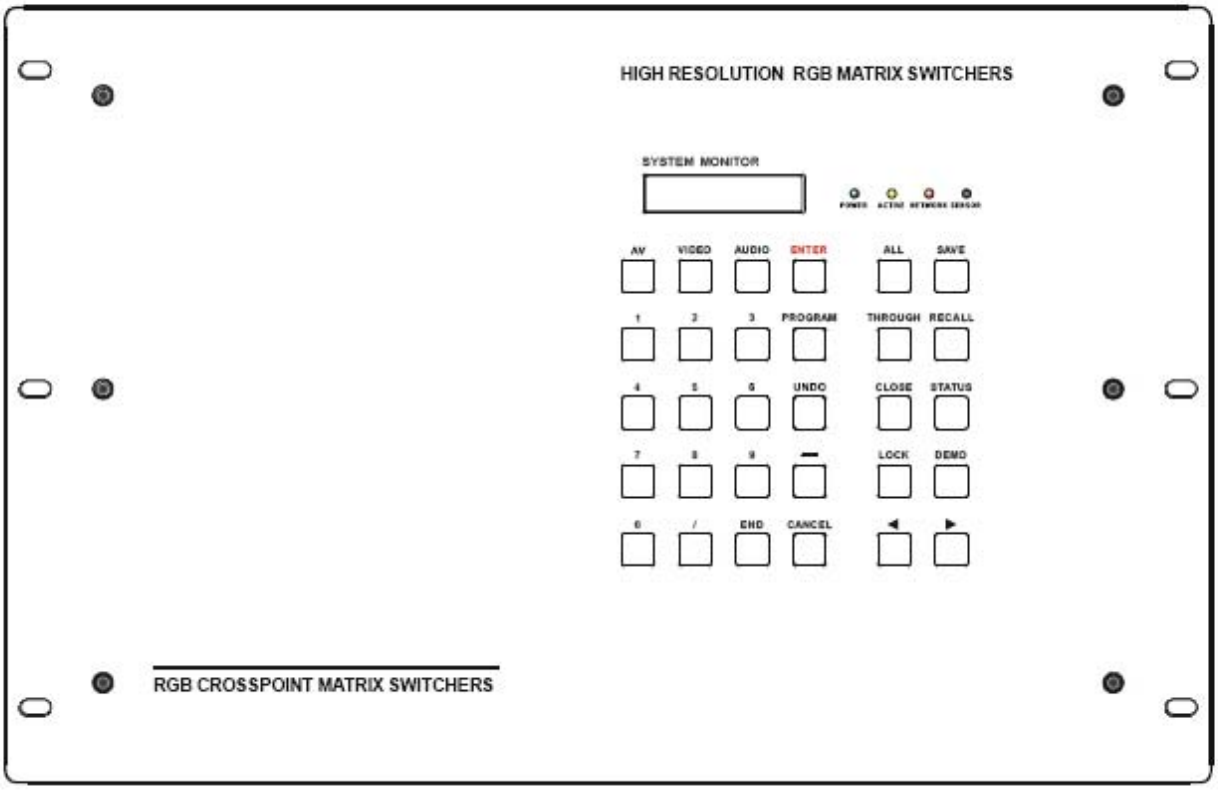
Front View of the RGB24/3224-A RGB3232-A



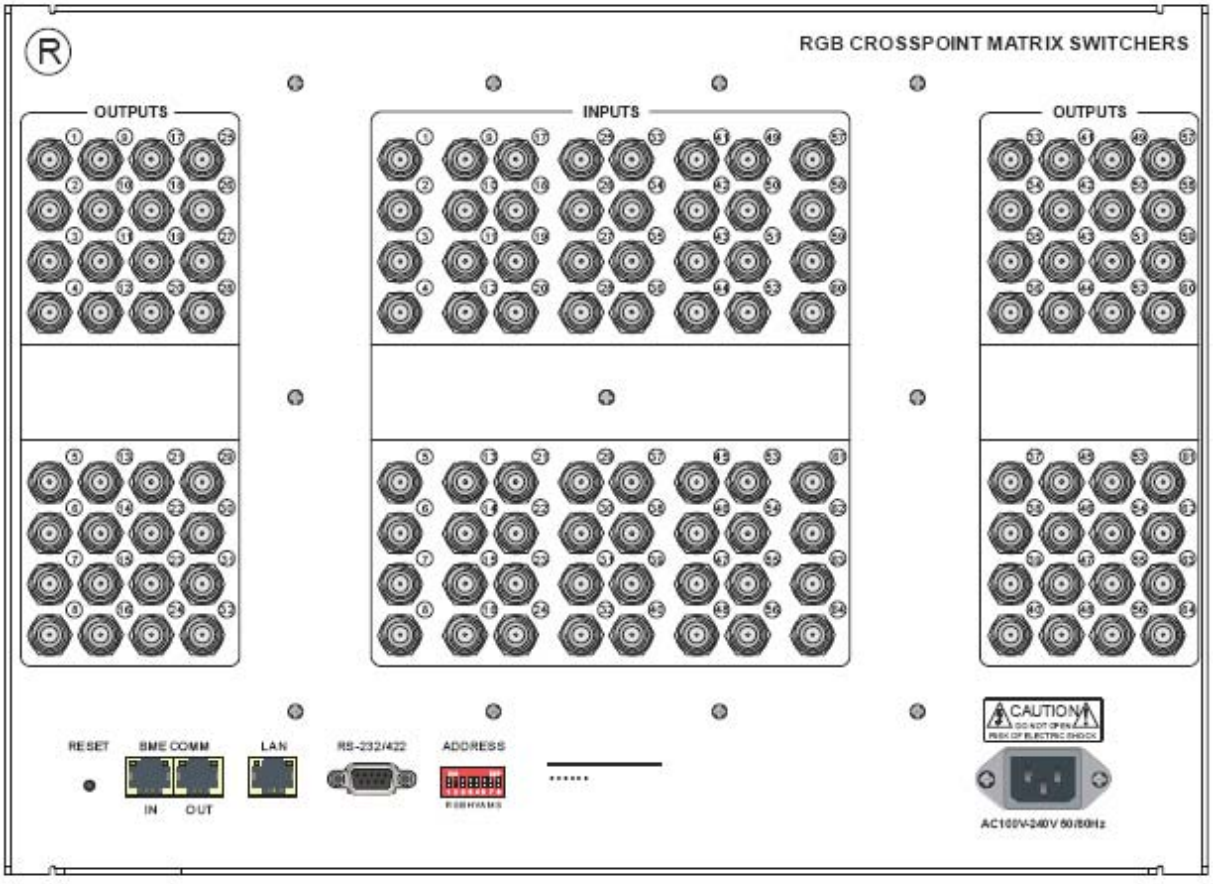
Rear View of the RGB24/3224-A、RGB3232-A



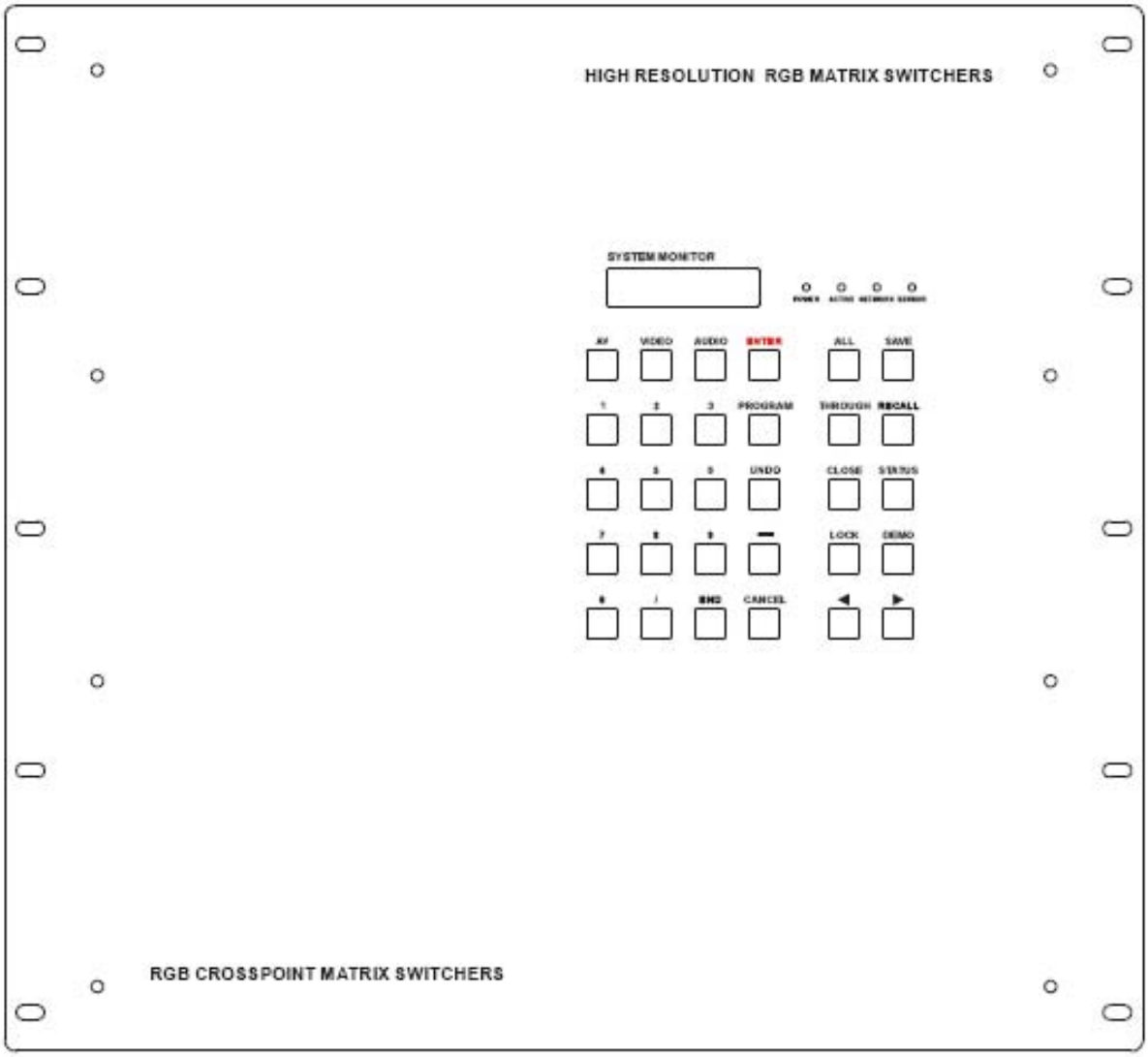
Front View of RGB48/6424、RGB48/6432、RGB48/6448、RGB6464



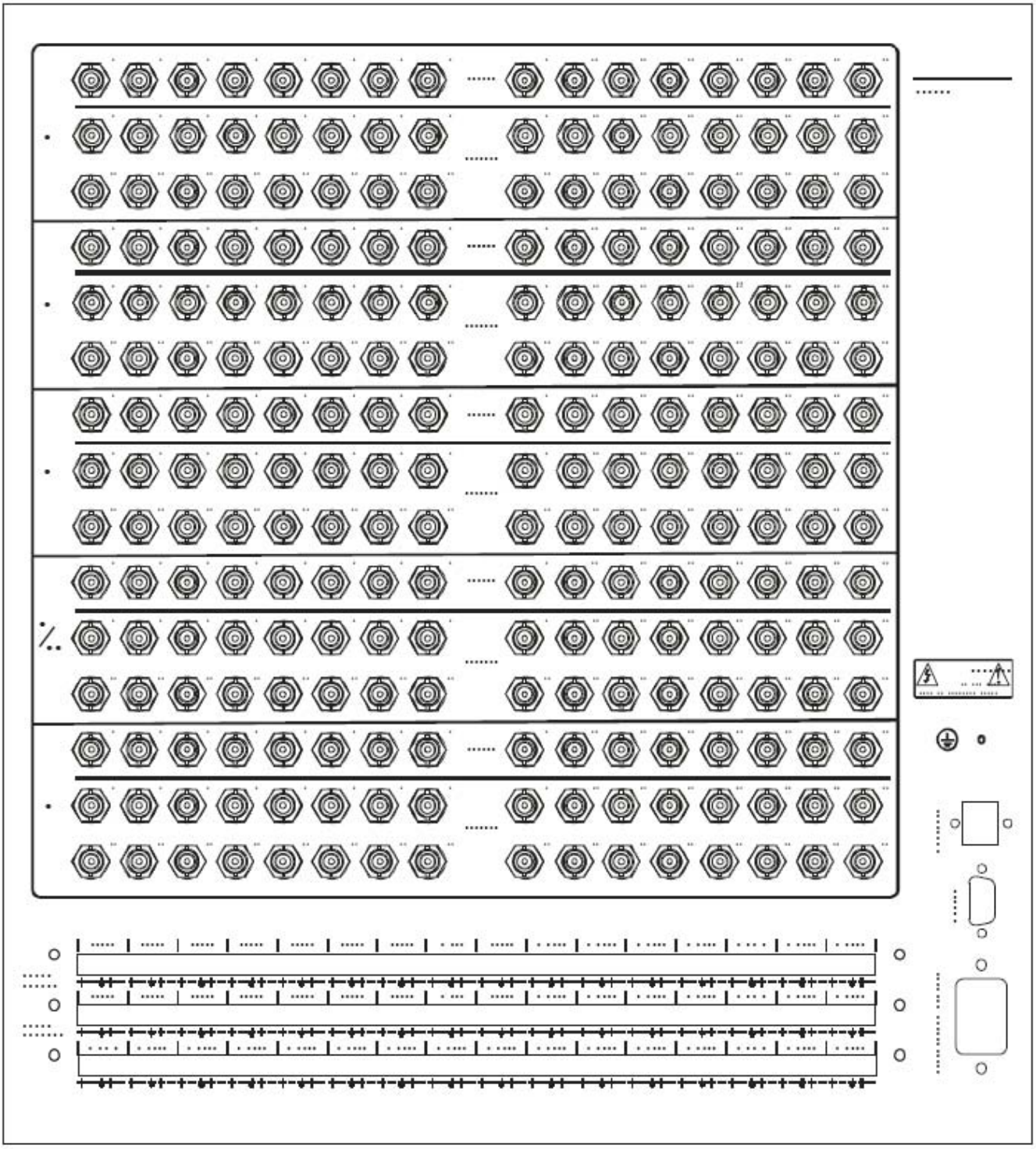
Rear View of RGB48/6424、RGB48/6432、RGB48/6448、RGB6464(R CH)



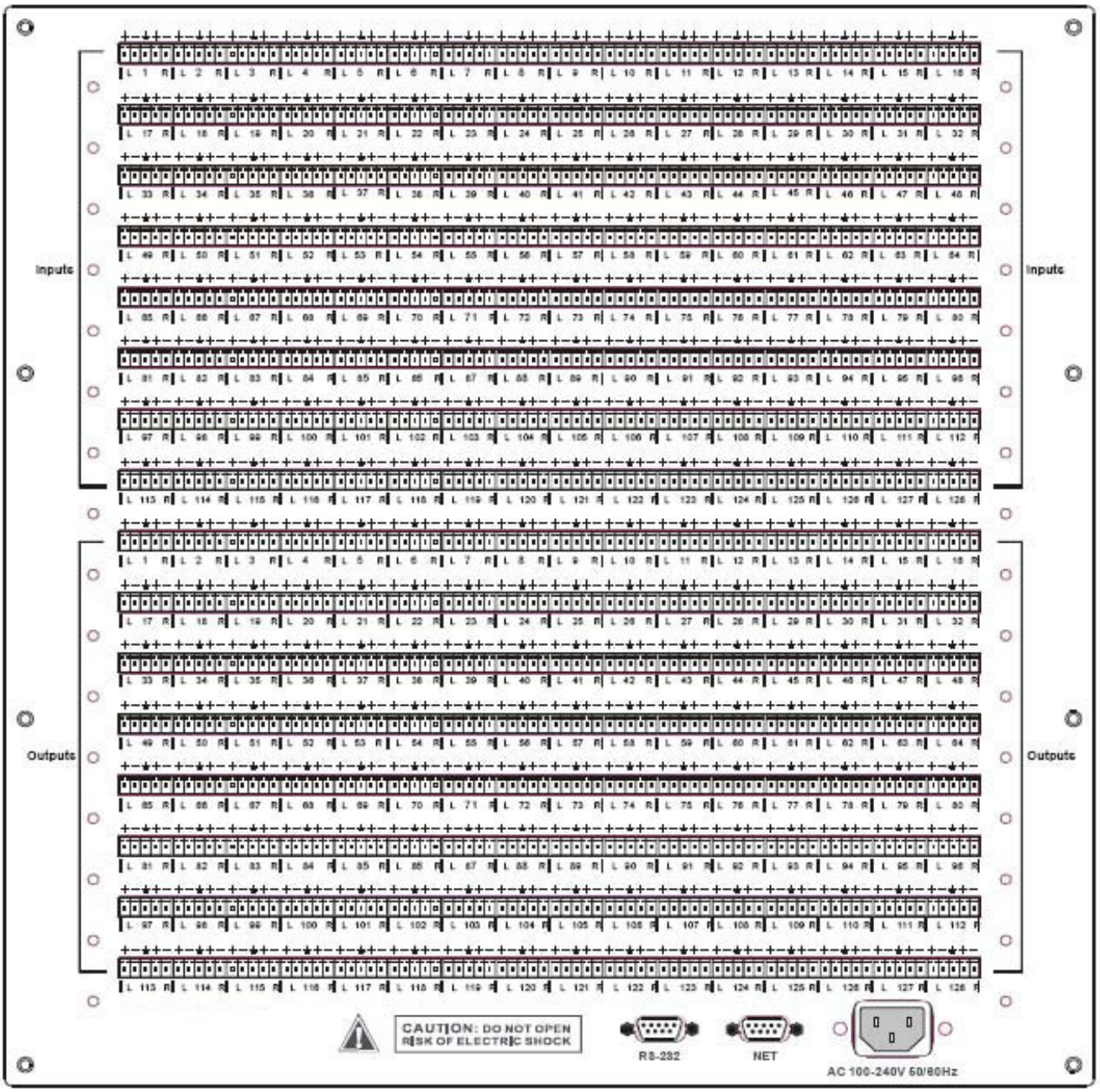
Front View of RGB08/1624-A、RGB08/1632-A

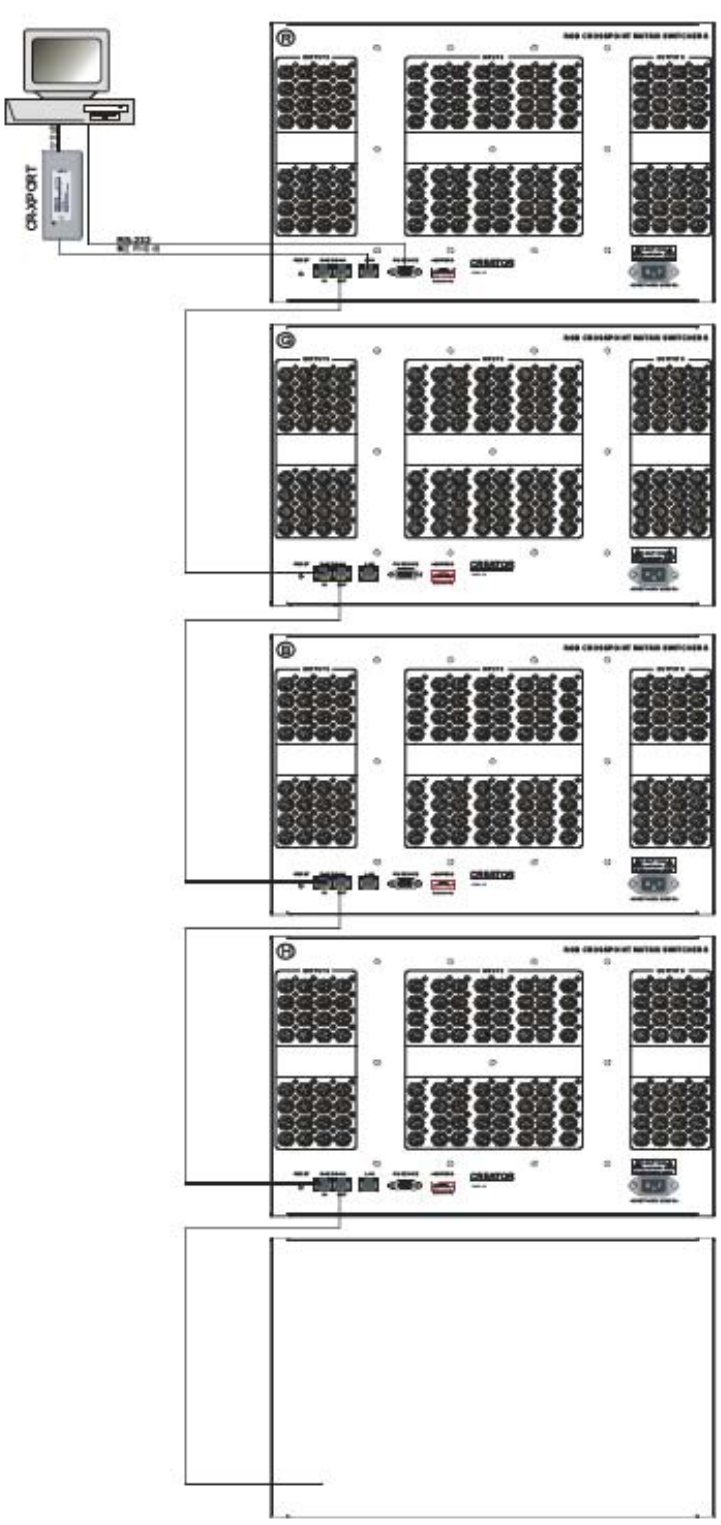


Rear View of RGB08/1624-A、RGB08/1632-A



Rear View of the RGB48/64 Series Audio box





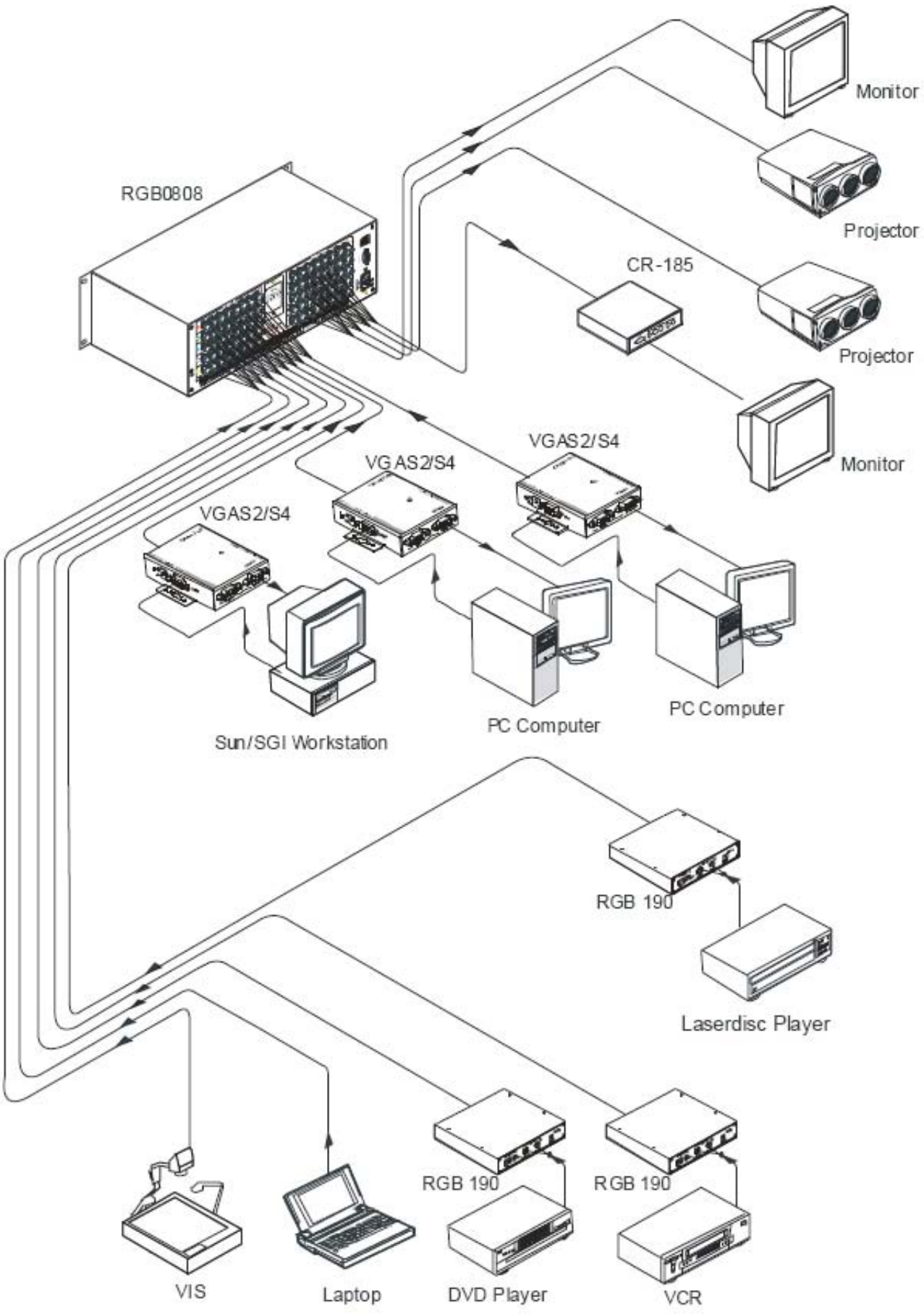
Red Channel

Green Channel

Blue Channel

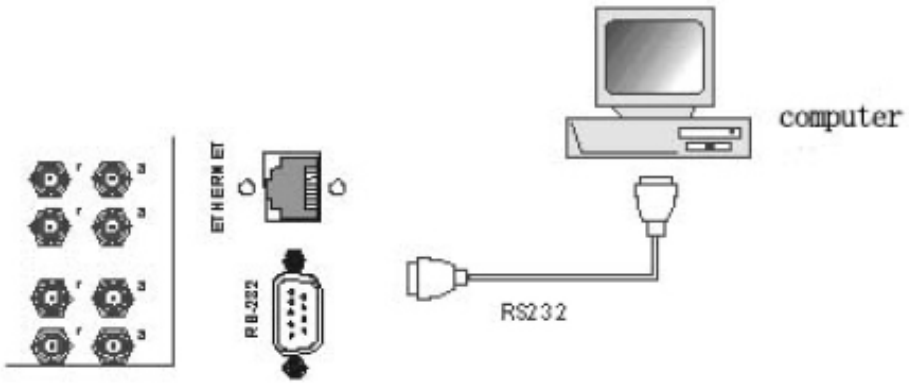
Horizontal Channel

Vertical Channel


Monitor
Projector
RGB0808
CR-185
Projector
Monitor
VGAS2/S4
VGAS2/S4
VGAS2/S4
Sun/SGI Workstation
PC Computer
PC Computer
RGB 190
Laserdisc Player
RGB 190
RGB 190
VIS
Laptop
DVD Player
VCR

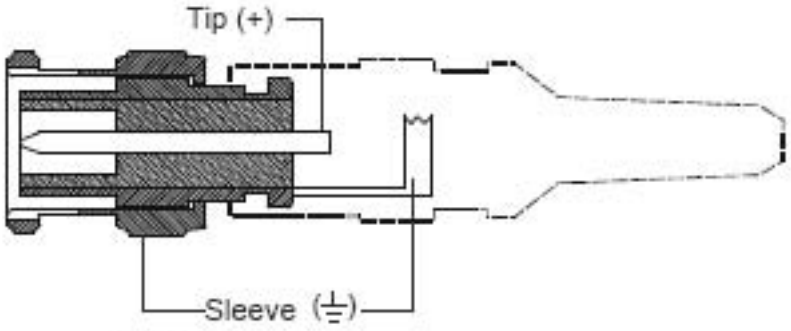
3.0 Operation and Control

The Switchers can be controlled by front controls or PC, third party automation and control systems, SWITCHER 2.0 control system software or through the Ethernet control via the RS-232 communication port. The RS232 is a female 9-pin D connector. It can be switched by several control systems. When the switcher connects to the COM1 or COM2 of the computer with control software, users can control it by that computer. To control the switcher, users may use the application SWITCHER 2.0 in the supplied CD or develop their own control software.



Connection between RGB matrix switcher and the computer

The RGB / Component matrix switchers may take DVD players, computers and graphic workstations as their input signal source, and projectors, video recorders, displays and amplifiers as their output signal depending on different applications. RGBHV connection: The RGB matrix switchers supports the AV video and VGA signal sources. RGBHV signal output terminals or YC output terminals are needed in the AV device; RGBHV signal output terminals are needed in the VGA device. The BNC connector is shown as the figure below. If switching Component Video and 2-channel analog audio, utilize the existing H/V inputs and outputs with the supplied BNC to RCA adapters for connecting the audio inputs and outputs.



BNC Connector

Please use the special five core RGB signal cord to connect the input and output devices and connect the BNC connector R (red) G (green) B (blue) H (horizontal) V (vertical) carefully.

Attention:

Please make sure the RGBHV connectors from the sources and to the destination should be in the same Order, Otherwise it could cause color loss or no output signal at all. Use supplied BNC to RCA for Component.

4.0 Audio Signal Connection:

“AUDIO INPUTS”, “AUDIO OUTPUTS” audio network interface in RGB matrix switchers can be connected to the audio signal and amplify sources. The audio connection is a little more complicated than video. It has two types of connection: balanced and unbalanced. The balanced connection transmits a pair of balanced signals with two cables. Because interferences will have the same intensity and the opposite phases on the two cables; it will be counteracted in the end. For the low frequency extent of the audio signal, it would be easily interfered under long distance transmission. Therefore as an anti-interference connection, it is mostly used in the connection of special high end devices.

The unbalanced connection transmits signals with only one cable. Without counteraction, it can be interfered more easily. Accordingly, it is adopted for household appliances or some cases with low technical demand. Take the audio signal line for example: 1.Unbalanced: pin “G” connects to SLEEVE, pin “+” connects to TIP, pin “–” connects to pin “G”; 2.Balanced: pin “G” connects to SLEEVE, pin “–” connects to RING, pin “+” connects to TIP.

To select which connection is up to the interface of the device. When available, the balanced connection is the first choice. Before connection, please read the command or relevant demand in the user manual carefully. In some cases, there is balanced in the source signal end but unbalanced in the destination end. If in a nonstandard case, it is done to connect balanced for the balanced end and unbalanced for the unbalanced end. But if in a standard one, the converter must be used to switch the signals as the same, balanced or unbalanced.

5.0 Connecting RGB48/642,RGB48/6432,RGB48/6448,RGB6464

Step 1, Set box RED as main control box, Set “R” and “M” in the “Address” of R box to the "On" position; Turn the other switches to the ”Off” position, All other boxes will need to be set to slave.

Set “G” and “S” of G box to “On” position, others to the “Off” position.

Set “B” and “S” of B box to “On” position, others to the “Off” position.

Set “H” and “S” of H box “On” position, others to the “Off” position.

Set “V” and “S” of V box “On” position, others to the “Off” position.

Step 2, Using a standard CAT5 cable; connect from the OUT port of the back panel BME COMM of the main control box, to the IN port of the back panel to the first sub control box directly. Connect from the OUT port of the backboard BME COMM of the first slave control box, to the IN port of the backboard BME COMM of the second slave control box directly. Repeat above steps until the four slave control boxes are connected; making the five boxes as a whole.

5.1 Front Panel/ Control

LCD display: Real time monitor of the operations and status

“0, 1,9” Keypad: Keys to select I/O channels and save/recall preset commands

“AV” AV synchronal button: To transfer video and audio signals synchronously by the switcher.
Example: To transfer both the video and the audio signals from input channel No.3 to output channel No.6.
Operation: Press buttons in the following order “3”, “AV”, “6”, “END”, “ENTER”

“VIDEO” Video button: To transfer only video signals from input channel to output channel.
Example: To transfer video signals from input channel No.3 to output channel No.10.
Operation: Press buttons in the following order “3”, “VIDEO”, “1”, “0”, “END”, “ENTER”

“AUDIO” Audio button: To transfer only audio signals from input channel to output channel.
Example: To transfer audio signals from input channel No.12 to output channel No.6.

Operation: Press buttons in the following order “1”, “2”, “AUDIO”, “6”, “END”, “ENTER”

“ / ” Break button: To break different channels in a command

Example: To transfer video and audio signals from input channel No.1 to output Channel No.2, 13, 6 at the same time

Operation: Press buttons in the following order “1”, “AV”, “2”, “/”, “1”,“3”, “/”, “6”, “END”, “ENTER”

“END” Ending command button: Use when the command input has been finished.

“ENTER” Execute Command: To perform a command after inputting it

“ALL” All button: To transfer an input channel to all output channels or switch off all output channels.

Example 1: To transfer video and audio signals from input channel No.7 to all output channels

Operation: Press buttons in the following order “7”, “ALL”

Note: Commands “END” & “ENTER” do not need to be used after this command.

Example 2: To transfer all input signals to the corresponding output channels

In another word, to switch to this status: 1->1, 2->2, 3->3, 4->4……16->16.

Operation: Press buttons in the following order “ALL”, “1”

Example 3: To switch off all the output channels.

Operation: Press buttons in the following order “ALL”, “2”

“SAVE” Save button: To save the present operation to a preset command

Example: To save the present operation to the preset command No.2

Operation: Press buttons in the following order “SAVE”, “2”

Note: There are altogether 10 preset commands ranged from No.0 to No.10.

“RECALL” Recall button: To recall the preset command

Example: To recall the preset command No.2

Operation: Press buttons in the following order “RECALL”, “2”

“CANCEL” Cancel button: To return to the standby status without performing any commands.

Example: To cancel the input instructions “1”, “AV”, “2”, “END”

Operation: Just press the “CANCEL” button after the above inputs.

“STATUS” Inquiring status button: To inquire the present status

Example1: To inquire the status of output channel No.7

Operation: Press buttons in the following order “7”, “STATUS”

Example2: To inquire the status of all the output channels one by one

Operation: Press the “STATUS” button.

“UNDO” Undo button: To resume to the previous status of the command.

“PROGRAM” Group programming button: To define, recall and clear a group of output channels.

Example 1: To group the output channels No.1, 2,3,4,5 under the Group 1

Operation: Press buttons in the following order “1”, “Program”, “Program”, “1”, “2”, “3”, “4”,“5”

Example 2: To transfer signal from input channel No.1 to Group 2

Operation: Press buttons in the following order “1”, “Program”, “2”

Example 3: To clear the output channels under Group 1

Operation: Press buttons in the following order “1”, “Program”, “0”

Note: Please clear the group to be set before grouping it.

“ ← ” Backspace button: To erase the last input entry that was entered.

“THROUGH” Through button: To transfer signals directly to the corresponding output channels.

Example: To transfer signals from input channels No.1, 2, 3 to their corresponding output channels.

Operation: Press buttons in the following order “1”, “/”, “2”, “/”, “3”, “THROUGH”

“CLOSE” Close button: To switch off the output channels

Example: To switch off the output channels No.1, 2

Operation: Press buttons in the following order “1”, “END”, “2”, “END”, “CLOSE”

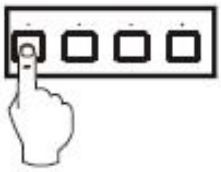
“LOCK” Lock button: To lock buttons on the front control panel hold it for 3 seconds.

Note: When the control panel is being locked, the switcher still can be controlled via RS232 port. To unlock it, a password is needed.

“DEMO” Demo button: To demonstrate the commands one by one every 3 seconds.

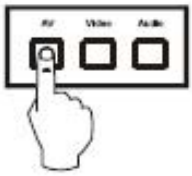
The Switch can be controlled directly by entering the following command:

“Input Channel” + “Switching Mode” + “Output Channel” + “END”+ “ENTER”



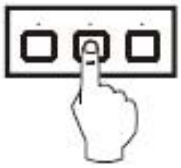
Input Command:
1

1、Press the button for input channel number"1"
Display feedback on LCD: "1"



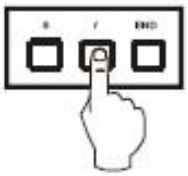
Input Command:
1B

2、Press the button for switching mode "AV"
Display feedback on LCD: "B" for the switching mode of video and audio ("A" for the switching mode of audio only; "V" for the switching mode of video only)



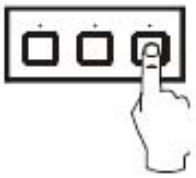
Input Command:
1B3

3、Press the button for the first output channel number "3"
Display feedback on LCD: "3"



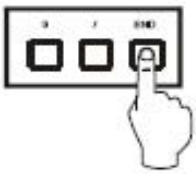
Input Command:
1B3.

4、Press the break button"/"
Display feedback on LCD: ", " for a break between two channels in a command



Input Command:
1B3. 4

5、Press the button for the second output channel number "4"
Display feedback on LCD: "4"



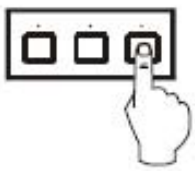
Input Command:
1B3. 4.

6、Press the button"END" to finish the command
Display feedback on LCD: "."

1B3,4.
Switch OK

7、Press the button "ENTER" to perform this command
Display feedback on LCD: "Switch OK"

Example **2**: To inquire the status on the output channel No.4
Operation: Press buttons in this order "4", "STATUS"



VIDEO: 3 → 4
AUDIO: 2 → 4

Display feedback on LCD: The video signal of output channel No.4 is transferred from the input channel No.3 and the audio signal is from the input channel No.2

5.2 Remote Control Operation

The Matrix can be controlled with the infrared remote control. The function buttons on the remote are the same as the ones on the front control panel, the remote uses the same commands and in the same order you would input them.

5.3 Operation of Application Software

Switcher 2.0 is a switcher control application compatible with switchers with different inputs and outputs.

Requirments to run the software

Operating System: Window98/2000/NT/XP/Vista/7

Memory: At least 32M

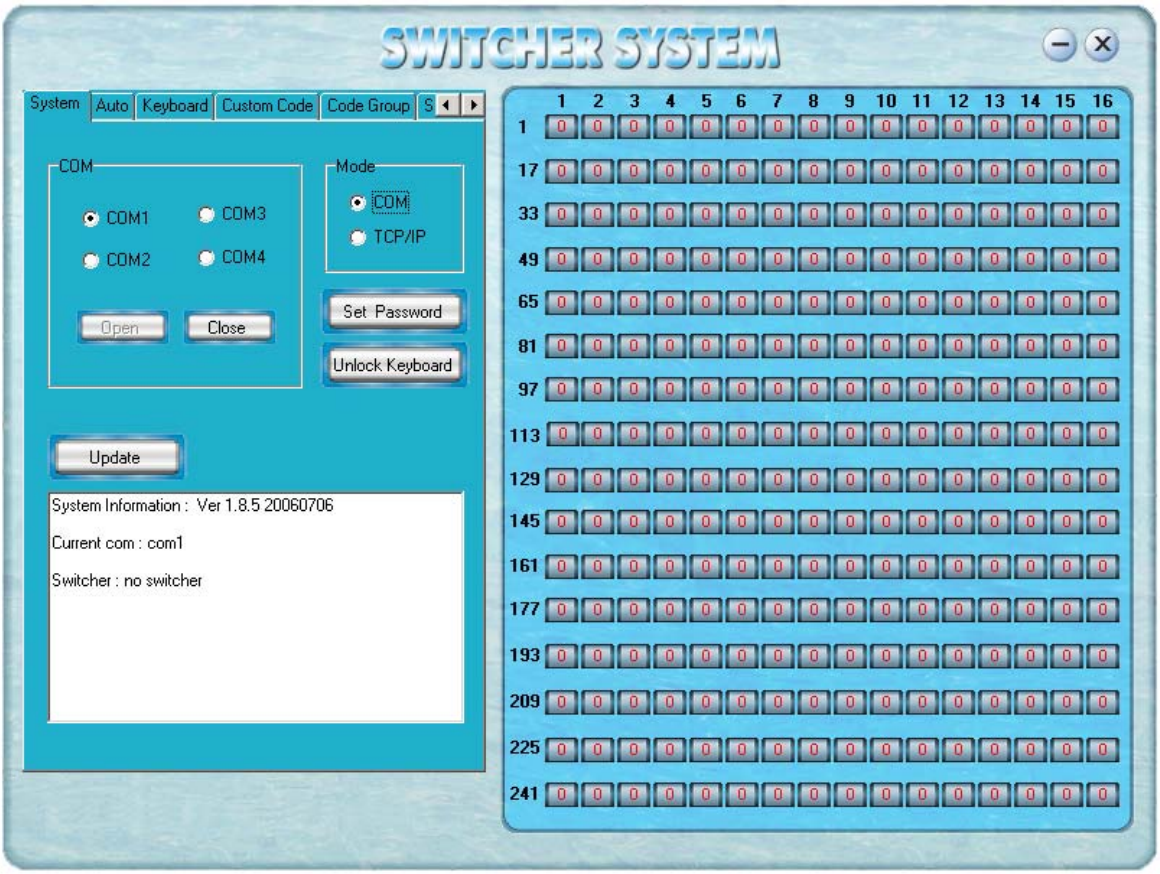
Space in hard disk: At least 10M

CD-ROM

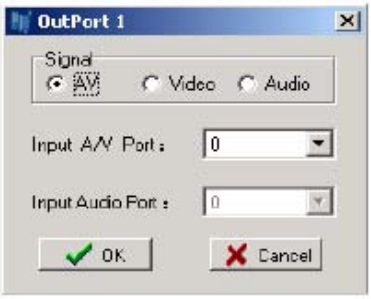
COM Port

Users can select and operate at different function tabs such as:

SYSTEM, AUTO, KEYBOARD, CUSTOM CODE, CODE GROUP and SEND/RECEIVE CODE LIST.



On the right hand side of the main window, there are 256 buttons representing the 256 output channels. When clicking on the button output 1, the text OutPort 1 will appear



“SIGNAL”: Select the switching mode “AV”, “VIDEO” and “AUDIO”

“INPUT A/V PORT”: Select an input A/V channel

“INPUT AUDIO PORT”: Select an input audio channel\

Once the selections have been entered, click “OK”

“MODE”: Select the communication mode between “COM” or “TCP/IP”

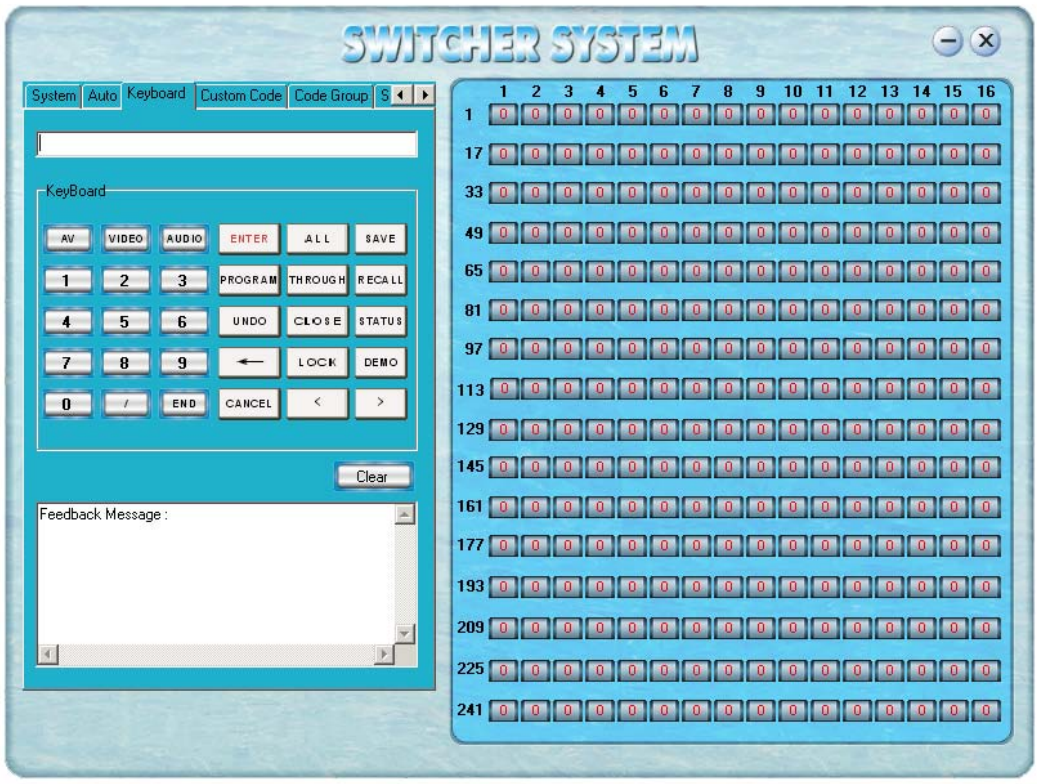
“COM”: Select a COM port to control the switcher (if selecting “TCP/IP” as the communication mode, a sub-page will appear to input the IP address of the switcher)

“Set Password”: Set the password for the control panel on the Matrix (The password must be an 8 digit number)

“Unlock Keyboard”: Unlock the keyboard of the control panel on the Matrix.

5.4 Keyboard Tab

Because the function buttons on this tab are the same with the ones on the front control panel, it shares the same control operation and command format with the control panel. Please refer to the details in Chapter 7: Operation of the Control Panel



5.5 Auto Tab

This tab is used to test the switcher after connecting it to all the input and output devices. For example, to test the function of an RGB64X32 matrix switcher, the Auto Tab is set as below after finishing all the connection.

Switch Mode: “AV”

INPUT: From 1 to 64

OUTPUT: From 1 to 32

Delay: 1000ms (1 second)

Click on the “START” button to perform the test, the matrix switcher will:

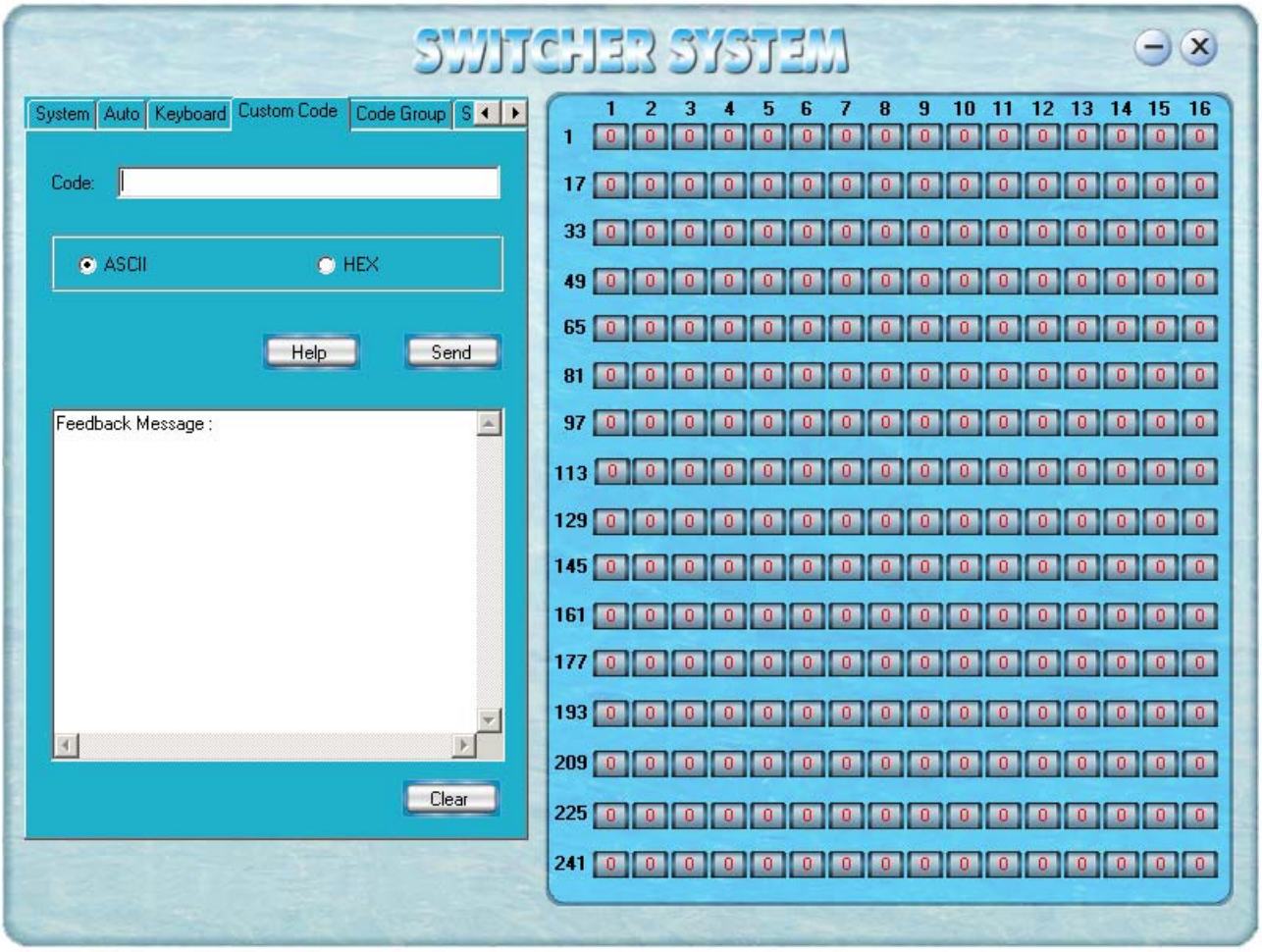
Transfer the signals from input channel No.1 to output channel No.1-32;

Transfer the signals from input channel No.2 to output channel No.1-32;

Transfer the signals from the input channel No.64 to the output channel No.1-32;

This switching test will perform this way one by one every second until the test is over.

5.6 Custom Code Tab



Select between ASCII and HEX format command codes

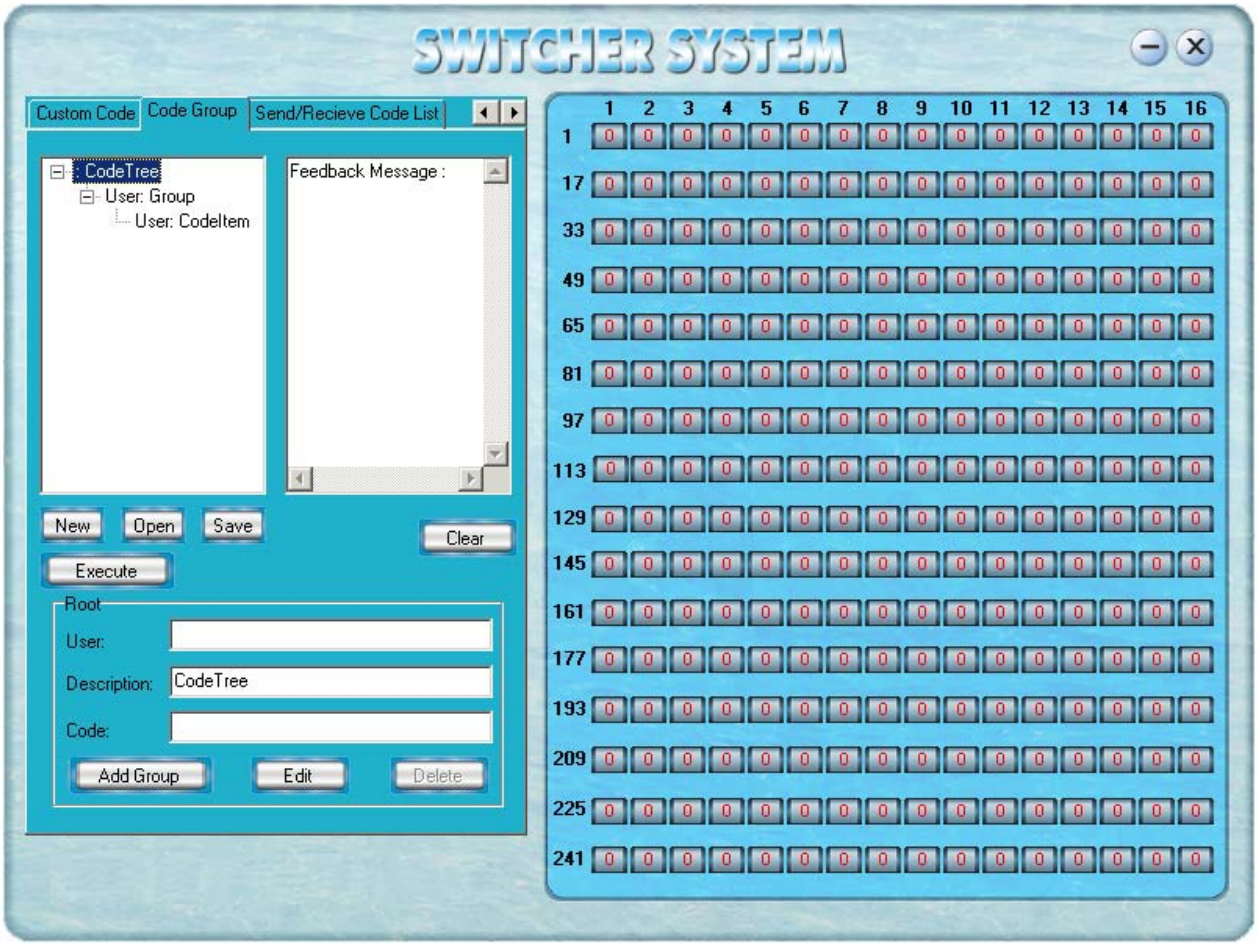
Help: Displays the list of command codes.

Send: Sends out the typed command codes.

For example, to transfer the video and audio signals from the input channel No.1 to the output channel No.7, and the audio signals from the input channel No.2 to the output channel No.4, just perform the following steps below.

1. Select the “ASCII” as the command codes format;
2. Input the command codes “1B7.2A4.”
3. Click the button “Send” to perform the commands.

5.7 Code Group Tab



New: Create a new group of preset commands

Open: Opens a group of preset commands

Save: Saves the present group of preset commands

Execute: Executse a selected preset command or a selected group of preset commands

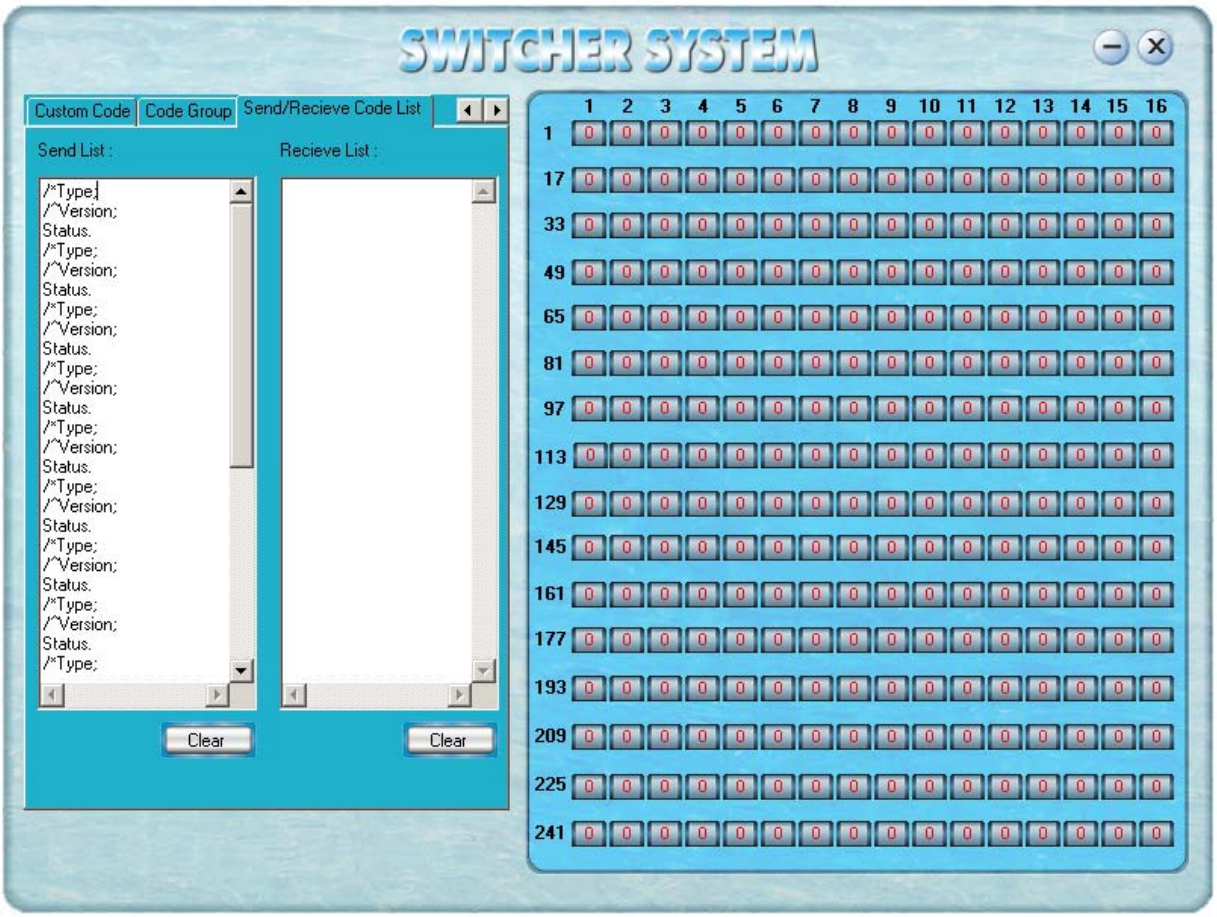
Clear: Clears the feedback window

Add Code ltem: To add another new group of preset commands

Edit: To edit the User's name (User),

Delete: Deletes the selected group.

5.8 Send / Recieve Code List Tab



Send List window: Lists sent command code

Received List window: Lists feedback from the switcher

Clear: Clears either of the two lists

6.0 RS-232 Operation

With the application “Switcher 2.00” one is able to control and operate the RGB Matrix remotely

Communication protocol:

Baud rate: 9600 Data bit: 8 Stop bit: 1 Parity bit: none

Command Types	Command Codes	Functions
System Command		
	/*Type;	Acquires the models information.
	/+xxxxxxxx;	Rewrites the passwords: must be 8 digits.
	/%Lock;	Locks the keyboard.
	/%Unlock;	Unlocks the keyboard.
	/:BellOff;	Turn off the buzzer.
	/:BellOn;	Turn on the buzzer.
	/^Version;	Acquires the version of software
	/~CREATOR20;	Switch to CREATOR2.0 command system.
	[x1]All	Transfer signals from input channel [x1] to all output channels
Operation Command		
	All#	Transfer all input signals to matching output channels.
	All$	Switch off all output channels.
	[x1]#	Transfer signals from input channel [x1] to output channel [x1].
	[x1]$	[x1]$. Switch off output channel [x1].
	[x1] V[x2]	Transfer the video signals from input channel [x1] to output channel [x2].
	[x1] V[x2],[x3],[x4]	Transfer the video signals from input channel [x1] to output channels [x2], [x3] and [x4].
	[x1] A[x2]	Transfer the audio signals from input channel [x1] to output channel [x2].
	[x1] A[x2],[x3],[x4]	Transfer the audio signals from input channel [x1] to output channels [x2], [x3] and [x4].
	[x1] B[x2]	Transfer both video and audio signals from input channel [x1] to output channel [x2].
	[x1] B[x2],[x3],[x4]	Transfer both video and audio signals from input channel [x1] to output channels [x2], [x3] and [x4].
	[x1]P[x2]	Transfer signals from input channel [x1] to all output channels in group [x2].
	[x1]PP[x2],[x3],[x4]	Group output channels [x2], [x3] and [x4] under group [x1].
	S[x]	Acquires the output channels in Group[x].
	Status[x1]	Acquires the input channel to the output channel [x1].
	Status	Acquires the input channel to the output channels one by one.
	Save[Y]	Save the present operation to the preset command [Y]. [Y] ranges from 0 to 9.
	Recall[Y]	Recall the preset command [Y].
	Clear[Y]	Clear the preset command [Y].
	[X1]*[X2]!	Transfer both video and audio signals from input channel [x1] to output channel [x2].

Command Types	Command Codes	Functions
	[X1]*[X2]$	Transfer audio signals from input channel [x1] to output channel [x2].
	[X1]*[X2]%	Transfer video signals from input channel [x1] to output channel [x2].
	[X1]*[X2]&	Transfer video signals from input channel [x1] to output channel [x2].

7.0 Technical Specifications

Models / Specifications	Matrix RGB8 Series	Matrix RGB16 Series	Matrix RGB64, 48 Series
Video			
Gain	0 dB		
Bandwidth	450MHz (-3dB), fully loaded 0 -10MHz @ ± 0.1dB 0 -100MHz @ ± 0.6dB		
Cross Talk Sum	56dB@10M, -40dB@100M,		
Differential Phase I/0S	<1.28°, 3.58MH,		
Differential Gain Error	0.1°, 3.58-4.43MHz		
Differential Gain Error	0.1%, 3.58-4.43MHz		
Max Transfer Delay	5nS(±1nS)		
Switching Speed	200 ns (Max)		
Signal type	RGBHV, RGBS, RGsB, RsGsBs, HDTV, Component video,S-video, Composite video		
Input video			
Connector	BNC female		
Signal Strength	1V p-p Y component video, S-video, composite video; 0.7V p-p RGB;0.3V p-p R-Y & B-Y component video, S-video		
Maximum/Minimum Level	Analog signals: 0.5V ~ 2.0V p-p		
Impedance	75 Ω		
Echo loss	-30dB@5MHz		
Max Error in DC Offset	15mV		
Output video			
Connector	BNC female		
Maximum/Minimum Level	2.0V p-p		
Impedance	75 Ω		
Echo loss	-30dB@5MHz		
Max Compensation in DC Offset	±5mV		

Models / Specifications	Matrix RGB8 Series	Matrix RGB16 Series	Matrix RGB64, 48 Series
Sync Signal			
Input/Output Signals	RGBHV, RGBS, RGsB, RsGsBs		
Input Level	0.5V- 5.0V p-p,: 4.0V p-p normal		
Output Level	AGC-TTL: 5Vp-p, unterminated		
Input Impedance	510 Ω		
Output Impedance	75 Ω		
Polarity	Straight or subtractive according to input		
Audio Signal			
I/O Connector	3.8mm with screw , 5 pole		
Gain	0dB		
Frequency Respond	20 Hz ~ 20 kHz,		
General Harmonic Distortion + Noise	0.03% @ 1 kHz (under rating voltage)		
S/N	>90dB		
Segregation Rate	>80dB @ 1 kHz		
CMRR	>75dB @: 20 Hz ~ 20 kHz		
Signal	Stereo balanced /unbalanced		
Impedance	Input >10 kΩ(balanced /unbalanced) Output 50 Ω (unbalanced), 100 Ω(balanced)		
Maximum Input Level	+19.5dBu, (balanced /unbalanced)		
Gain error	±0.1dB		
Max Output Level	+19.5dBu, (balanced /unbalanced)		
Control type			
Serial Control Port	RS-232, 9-pin FD connector		
Baud Rate and Protocol	Baud rate: 9600 Data bit: 8 Stop bit: 1 Parity bit: none		
Serial Control Poling Protocol	2 = TX, 3 = RX, 5 = GND		
Ethernet	Connector: RJ-45 Female(Optional accessory) Protocol: TCP/IP Speed: Full/half-duplex 10/100		
Control Application	Switch 2.0		
Features			
Power Supply	100VAC ~ 240VAC, 50/60 Hz, universal international power supply		
Temperature	Storing and operating temperature: -20° ~ +70°C		
Humidity	Storing and operating humidity: 10% ~ 90%		
Size	485(L)X133(W)X266(H)	485(L)X311(W)X266mm(H)	485(L)X315(W) X266mm(H) (single box)
Weight	4.5kg	9.5kg	10kg
MTBF	30,000 hours		
Quality Guarantee	3 Year Warranty		

8.0 Troubleshooting

Problem	Solution
Output image is displayed with a ghost	Check display settings, try another high quality cable
Color loss or no video on output signal	Check both the input and output connections
Remote control doesnt work	Check batteries, If broken, contact dealer
The switcher cannot be controlled by computer through COM port.	Check the COM port in the software. Make sure the COM is working
NO sound when switching with I/O signal.	Make sure the beeper is switched on. If it is it may be broken inside, contact dealer
NO image on output signal	Check the Input and Output connectors they may be loose. Check the connection cord it may be broken. Check the output device and make sure it is connected to the output channel.
Power Indicator doesnt work, no display on LCD no response to any operation.	Check the power cord to see it is connected and not damaged.
Interference in the output image	Check to see if the unit is well grounded.
Static gets stronger when connecting BNC connectors	The unit is not grounded correctly. Correct issue immediately or damage may be caused to the switch.
Beeper makes sound. LCD is displaying normally and there is a returning code. But there isn't any Video or Audio output.	Check connections, and replace if damaged
The swticher cannot be controlled by front panel keys, RS-232 port or remote control	The unit may be broken, contact dealer for repair.

ATLONA
1293 Mountain View Alviso Rd, Suite A
Sunnyvale, CA 94089
Toll Free: 1-877-536-3976
International: 408-954-8782
FAX: 408-743-5622
Website: www.atlona.com
E-MAIL: info@atlona.com