



**8x8 HDMI Matrix Switch
VM0808H
User Manual**



EMC Information

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

CE Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

KC Information: 이 기기는 업무용 (A 급) 전자파 적합기기로서 판매자 또는 사용자는 이점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

RoHS

This product is RoHS compliant.

Safety

This product has been classified as Information Technology Equipment.

SJ/T 11364-2006

The following contains information that relates to China.

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
电器部件	●	○	○	○	○	○
机构部件	○	○	○	○	○	○

- : 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T 11363-2006规定的限量要求之下。
- : 表示符合欧盟的豁免条款, 但该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。
- ×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。



User Information

Online Registration

Be sure to register your product at our online support center:

International	http://eservice.aten.com
---------------	---

Telephone Support

For telephone support, call this number:

International	886-2-8692-6959
China	86-10-5255-0110
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988
United Kingdom	44-8-4481-58923

User Notice

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed *as is*. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.

Package Contents

The VM0808H package consists of:

- ◆ 1 VM0808H 8x8 HDMI Matrix Switch
- ◆ 1 Power Cord
- ◆ 1 IR Remote Control
- ◆ 1 IR Receiver
- ◆ 1 Mounting Kit
- ◆ 1 User Instructions*

Check to make sure that all the components are present and that nothing got damaged in shipping. If you encounter a problem, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

* Features may have been added to the VM0808H since this manual was published. Please visit our website to download the most up-to-date version.

© Copyright 2010–2015 ATEN® International Co., Ltd.
Manual Part No. PAPE-0349-AT1G
Manual Date: 2015-11-30

ATEN and the ATEN logo are registered trademarks of ATEN International Co., Ltd. All rights reserved.
All other brand names and trademarks are the registered property of their respective owners.

Contents

EMC Information	ii
RoHS	ii
Safety	ii
SJ/T 11364-2006.	ii
User Information	iii
Online Registration	iii
Telephone Support	iii
User Notice	iii
Package Contents	iv
Contents	v
About this Manual	viii
Conventions	ix
Product Information	ix

Chapter 1.

Introduction

Overview	1
Features	2
Requirements	3
Source Devices	3
Display Devices	3
Cables	3
Source Device Operating Systems	4
Components	5
Front View	5
Rear View	6
IR Remote Control	7

Chapter 2.

Hardware Setup

Rack Mounting	9
Grounding	11
Cable Connection	12
Installation Diagram	13

Chapter 3.

Front Panel Operation

Overview	15
Front Panel Pushbuttons	15
Enter Password	16
Main Screen	17
Menu Organization	18
Menu Pushbutton	19
Set IP Port	19
IP Address	19

Subnet Mask	20
Gateway	20
Default IP Settings.	21
Save and Reset / Exit	21
Set Serial Port	22
Default Serial Settings.	22
Operation Mode	24
Power on Detection	24
Security Mode	26
Password Required.	26
Save / Load Profile	28
Save/Load Profile	28
Profile Pushbutton	29
IR Remote Control Operation	30
Change the Input source of an Output display	30
Power on/off individual Output displays	30
Power on/off all Output displays	31

Chapter 4.

Remote Operation

Overview	33
Logging In	33
Connections Page	35
Toolbar	36
Configuring Connections.	37
Status Colors.	37
Save / Load Connection Profiles.	38
Viewing Port Information.	38
Setup	39
IP Setup	39
Serial Setup.	40
Port Name.	41
Firmware.	42
Profile Selection	43
Add/Delete Selection Profile	43
Profile Selection Name	44
User Management	45
Add User	46
Edit User	46
Privileges.	47
Telnet Operation	48
Configuration Menu.	48
1. H – Call up the command list for help	48
2. GT – Set gateway address	49
3. IM – Set IP subnet mask	49
4. IP – Set IP address	49

5. LO – Load connections from profile	49
6. PW – Change password	49
7. RI – Read what input is connected to nn output	49
8. RO – Read what output is connected to nn input	49
9. SB – Set serial port baud rate	50
10. SS – Switch input to specified output	50
11. SV – Save the current connections into profile	50
12. TI – Set timeout	50
13. VR – Software version information	50

Chapter 5.

RS-232 Commands

Overview	51
RS-232 Control Tool	51
RS232 Pin Assignment	52
Configuring the Serial Port	52
Switch Port Commands.	53
EDID Commands	55
Mute Commands.	57
Save / Load Profile Commands	58
Power On Detection Commands.	59
Read Commands	60
CEC Commands.	61
Baud Rate Setting.	62
OSD Commands.	63
Echo Commands.	64
Blackscreen Commands.	65
Reset.	66
Acknowledge.	66
RS-232 Pin Assignment	67

Appendix

Safety Instructions.	69
General	69
Rack Mounting	71
Technical Support	72
International.	72
North America	72
Specifications	73
Limited Warranty.	74

About this Manual

This User Manual is provided to help you get the most from your VM0808H system. It covers all aspects of installation, configuration and operation. An overview of the information found in the manual is provided below.

Chapter 1, Introduction, introduces you to the VM0808H system. Its purpose, features and benefits are presented, and its front and back panel components are described.

Chapter 2, Hardware Setup, describes how to set up your VM0808H installation.

Chapter 3, Local Operation, explains the fundamental concepts involved in operating the VM0808H at the local site via the front panel LCD display, using tuner dials, pushbuttons, and the IR remote control.


Chapter 4, Remote Operation, provides a complete description of the VM0808H's Browser Graphical User Interface (GUI), and how to use it to remotely configure and operate the VM0808H.

Chapter 5, RS-232 Protocol Commands, provides a complete list of the serial control protocol commands used when utilizing the RS-232 Serial Port so that an extra source device can function further as transmitter and receiver.

An Appendix, provides specifications and other technical information regarding the VM0808H.

Conventions

This manual uses the following conventions:

- Monospaced** Indicates text that you should key in.
- [] Indicates keys you should press. For example, [Enter] means to press the **Enter** key. If keys need to be chorded, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt].
1. Numbered lists represent procedures with sequential steps.
- ◆ Bullet lists provide information, but do not involve sequential steps.
- Indicates selecting the option (on a menu or dialog box, for example), that comes next. For example, Start → Run means to open the *Start* menu, and then select *Run*.
-  Indicates critical information.

Product Information

For information about all ATEN products and how they can help you connect without limits, visit ATEN on the Web or contact an ATEN Authorized Reseller. Visit ATEN on the Web for a list of locations and telephone numbers:

International	http://www.aten.com
North America	http://www.aten-usa.com

This Page Intentionally Left Blank

Chapter 1

Introduction

Overview

The ATEN VanCryst VM0808H 8x8 HDMI Matrix Switch is a distinct HDMI solution that offers an easy and affordable way to route any of 8 HDMI video sources to any of 8 HDMI displays, and view them in any arrangement.

As a matrix switch the VM0808H allows eight HDMI source devices to cross connect to eight HDMI displays at the same time, while giving you independent input/output control of each in any array possible. The VM0808H gives the ultimate flexibility and control for any HDMI multi-display installation.

Convenient configuration and operation is done via Graphical User Interface (GUI) using any web browser, locally by front panel LCD display with easy to use tuner dials, pushbuttons and IR Remote Control, or via high-end system controllers using the built in RS-232 serial controller.

The VM0808H unit can be controlled over a standard TCP/IP connection, and seamlessly integrates with any existing network for easy remote access.

Furthermore, for complete system integration, RS-232 control is standard with the VM0808H's built-in bi-directional RS-232 serial port that allows the switch to be controlled through a high-end controller, PC, and/or home automation/home theater software package.

With easy operation, simple setup, dynamic display, and convenient control features the VM0808H is the only HDMI solution that gives a multi-display installation everything it needs.

Features

- ◆ Connects any of 8 HDMI sources to any of 8 HDMI displays
- ◆ Long Distance Transmission - supports up to 20 meters (24 AWG HDMI standard cable)
- ◆ HDMI (3D, Deep Color) and HDCP compatible
- ◆ Easily switch between multiple sources and multiple displays
- ◆ Local Operation:
 - ◆ Front panel LCD display
 - ◆ Tuner Dials and Pushbuttons
 - ◆ IR Remote Control
 - ◆ Serial controller
- ◆ Remote Operation:
 - ◆ Browser Graphical User Interface (GUI)
- ◆ Superior video quality – HDTV resolution of 480p, 720p, 1080i, and 1080p (1920 x 1080); VGA, SVGA, SXGA, UXGA and WUXGA (1920 x 1200)
- ◆ Supports Dolby True HD and DTS HD Master audio
- ◆ Signaling rates up to 2.25 Gbits
- ◆ Features EDID Expert technology:
 - ◆ EDID Library with 14 default EDID configurations
 - ◆ Built-in EDID Mode selection
 - ◆ Copies a display's EDID to selected source devices
- ◆ Power on Detection - If an HDMI source is powered off, the VM0808H can automatically switch to the next powered-on source
- ◆ ESD protection for HDMI connections
- ◆ Firmware upgradeable
- ◆ Rack Mountable

Note: The VM0808H AP and GUI operation instructions can be downloaded from the ATEN website (www.aten.com).

Requirements

The following devices are required for a complete VM0808H installation:

Source Devices

- ◆ HDMI Type A output connector(s)

Note: A DVI/HDMI adapter is required when connecting a DVI source device.

Display Devices

- ◆ Display devices or receivers with an HDMI Type A input connector

Cables

- ◆ 1 HDMI cable for each source device you will be connecting
- ◆ 1 HDMI cable for each display device you will be connecting

Note: No cables are included in this package. We strongly recommend that you purchase high-quality cables of appropriate length since this will affect the quality of the audio and video display. Contact your dealer to purchase the correct cable sets.

Source Device Operating Systems

Supported operating systems are shown in the table, below:

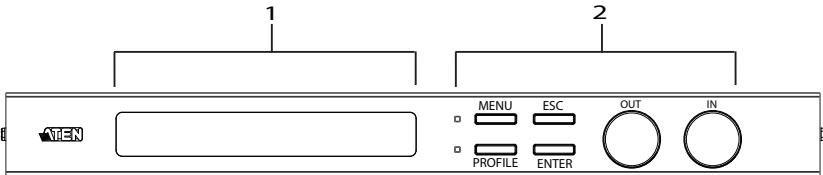
OS		Version
Windows		2000 and higher
Linux	RedHat	6.0 and higher
	SuSE	8.2 and higher
	Mandriva (Mandrake)	9.0 and higher
UNIX	AIX	4.3 and higher
	FreeBSD	3.51 and higher
	Sun	Solaris 8 and higher
Novell	Netware	5.0 and higher
Mac		OS 9 and higher
DOS		6.2 and higher

Note: For Windows 7 64-bit systems, the following must be installed first:

- 1) Microsoft Office 64-bit Access Database software; and
 - 2) Microsoft 64-bit ODBC and OLEDB driver
-

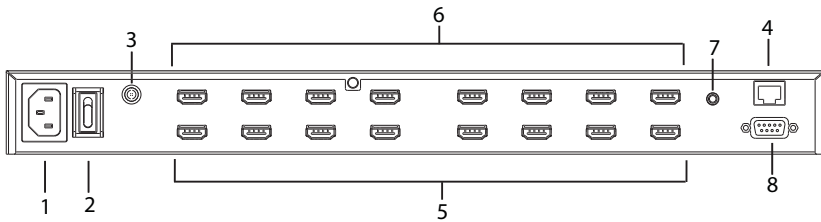
Components

Front View



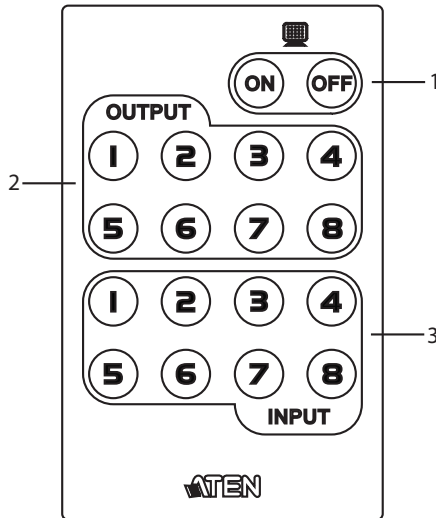
No.	Component	Description
1	LCD Display	The LCD Display gives a quick view of all port connections, and shows the various options for configuring and operating the VM0808H. For full details, see <i>Front Panel Pushbuttons</i> , page 15.
2	Function Pushbuttons and Tuner Dials	The function pushbuttons (MENU , PROFILE , ENTER and ESC) and tuner dials (IN and OUT) are for navigating the LCD built-in configuration utility. For full details, see <i>Front Panel Pushbuttons</i> , page 15. Note: The MENU and PROFILE front panel pushbuttons have built-in LEDs that light to indicate they have been selected.

Rear View



No.	Component	Description
1	Power Socket	This is a standard 3-pin AC power socket. The power cord from an AC source plugs in here.
2	Power Switch	This is a standard rocker switch that powers the unit on and off.
3	Grounding Terminal	The grounding wire attaches here. See <i>Grounding</i> , page 11, for further details.
4	Ethernet Port	In order to access the VM0808H's Browser Graphical User Interface (GUI), the VM0808H must be connected to your network. The cable that connects the VM0808H to your LAN plugs in here. See <i>Cable Connection</i> , page 12, for further details
5	HDMI Input Ports	The cables from your HDMI source devices plug into these ports.
6	HDMI Output Ports	The cables from your HDMI display devices plug into these ports.
7	External IR Receiver Port	This 3.5 mm Mini Stereo Jack connects to the IR Receiver unit included with your product.
8	RS-232 Serial Port	This serial remote port is for input source selection and high-end system control.

IR Remote Control



No.	Component	Description
1	Power ON/OFF	Use the ON and OFF pushbuttons to turn the Output displays on or off – by individual port, or all ports (see <i>Profile Pushbutton</i> , page 29).
2	Output Pushbuttons 1–8	Press Output display pushbuttons 1–8 to select the Output display you want to configure (see <i>Profile Pushbutton</i> , page 29).
3	Input Pushbuttons 1–8	Press Input source pushbuttons 1–8 to select the Input source you want to display on a selected output (see <i>Profile Pushbutton</i> , page 29).

This Page Intentionally Left Blank

Chapter 2

Hardware Setup

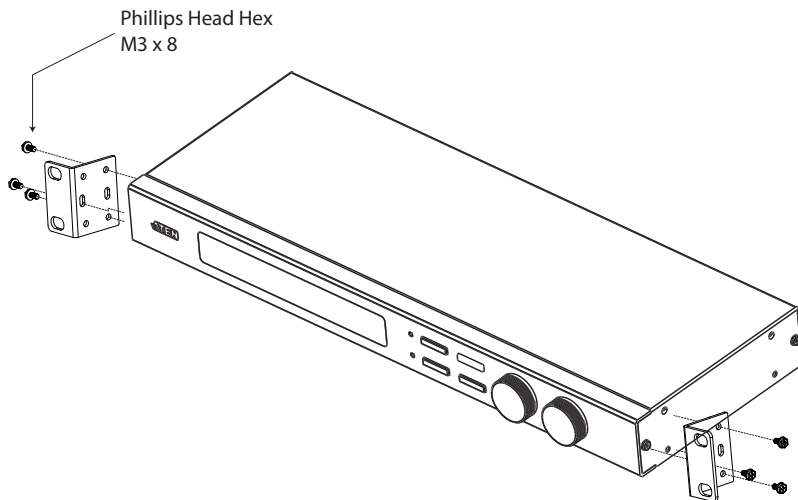


1. Important safety information regarding the placement of this device is provided on page 69. Please review it before proceeding.
2. Make sure that the power to all devices connected to the installation are turned off. You must unplug the power cords of any computers that have the Keyboard Power On function.

Rack Mounting

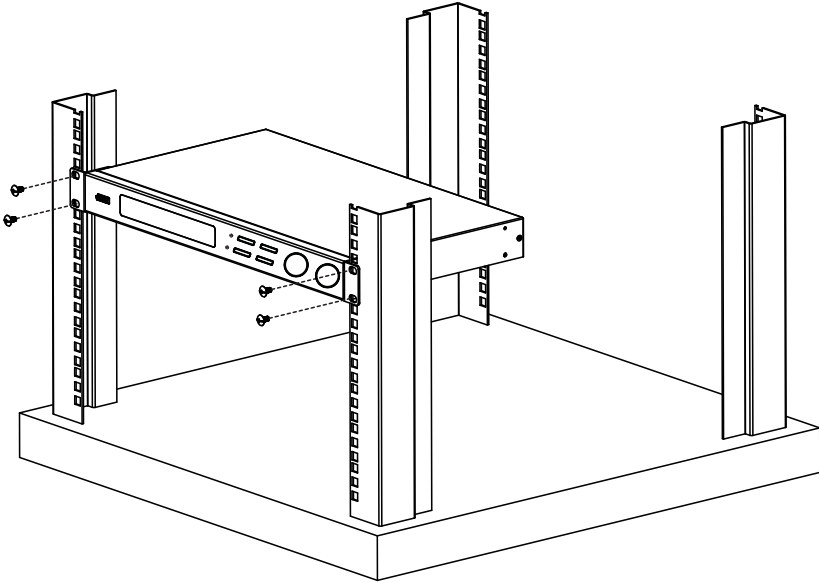
The VM0808H can be mounted in a 19" (1U) system rack. For the most convenient front panel pushbutton configuration and operation at the local site, mount the unit at the front of the rack, as follows:

1. Use the M3 x 8 Phillips head hex screws supplied with the Rack Mount Kit to screw the rack mounting brackets onto the front of the unit.



(Continues on next page.)

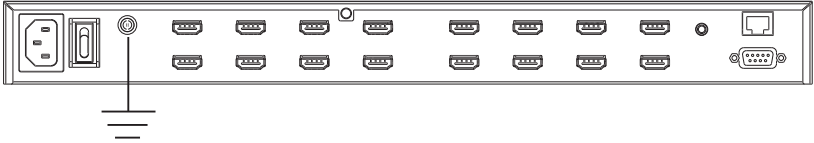
2. Position the unit in the front of the rack and align the holes in the mounting brackets with the holes in the rack.
3. Screw the mounting brackets to the rack.



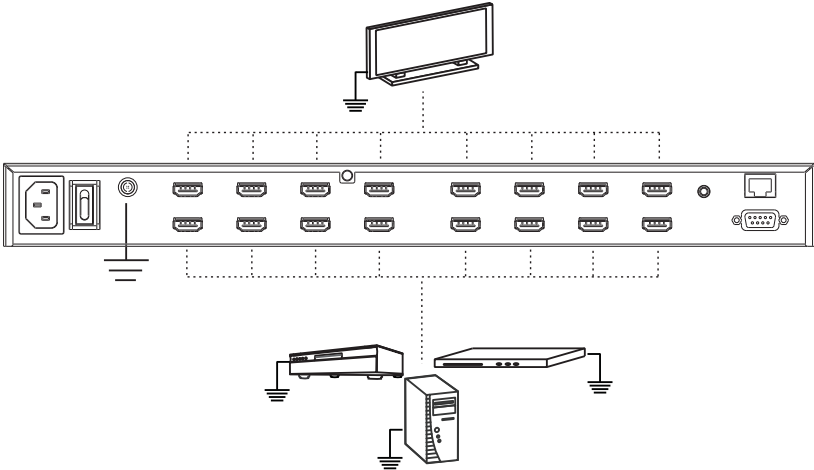
Grounding

To prevent damage to your installation, it is important that all devices are properly grounded.

1. Use a grounding wire to ground the VM0808H by connecting one end of the wire to the grounding terminal, and the other end of the wire to a suitable grounded object.



2. Make sure that all devices in your VM0808H installation are properly grounded.



Cable Connection

Installation of the VM0808H is simply a matter of connecting the appropriate cables. Refer to the installation diagram on the following page (the numbers in the diagram correspond to the steps below), and do the following:

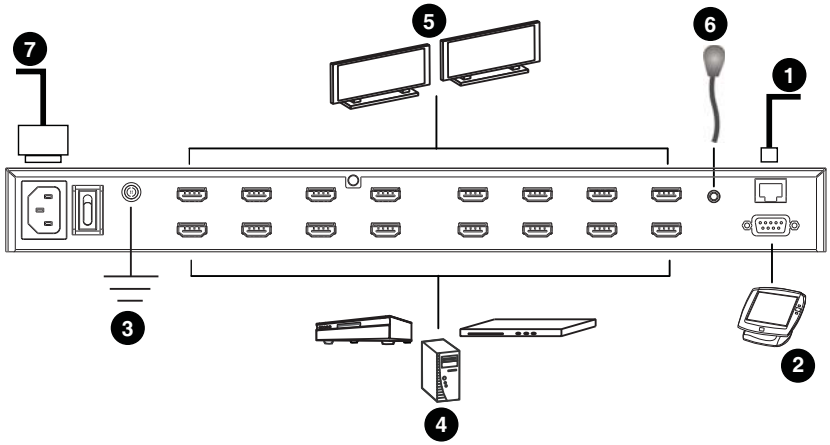
1. If using the Remote Operation features, plug a Cat 5e cable from the LAN into the VM0808H's **Ethernet** port.
2. If you are using the serial control function, use an appropriate RS-232 serial cable to connect the computer or serial controller to the VM0808H's female **RS-232** port.
3. Use a grounding wire to ground the unit by connecting one end of the wire to the grounding terminal, and the other end of the wire to a suitable grounded object.

Note: Do not omit this step. Proper grounding helps to prevent damage to the unit from surges or static electricity.

4. Connect up to 8 HDMI video sources to the **HDMI Input** ports
5. Connect up to 8 HDMI display devices to the **HDMI Output** ports
6. Connect the IR Receiver into the **External IR Receiver** input Port
7. Plug the power cord supplied with the package into the VM0808H's 3-prong AC socket, and then into an AC power source.
8. Power on the VM0808H and all devices in the installation.

(Continues on next page.)

Installation Diagram



This Page Intentionally Left Blank

Chapter 3

Front Panel Operation

Overview

The VM0808H can be configured and operated locally from the front panel via the LCD using the built-in tuner dials, pushbuttons and the IR Remote Control.

It can also be controlled remotely over a standard TCP/IP connection via graphical user interface (GUI) using a web browser; or by a RS-232 serial controller.

The local front panel operation is discussed in this chapter, while Over-IP operation is discussed in Chapter 4, and RS-232 serial control is discussed in Chapter 5.

Front Panel Pushbuttons

The VM0808H front panel features an LCD display, tuner dials and pushbuttons for convenient configuration and operation locally. This allows users to perform operations such as selecting which source shows on which display, configuring the IP port, configuring the serial port, setting Power On Detection and EDID modes, selecting security settings, and loading/saving connection profiles.

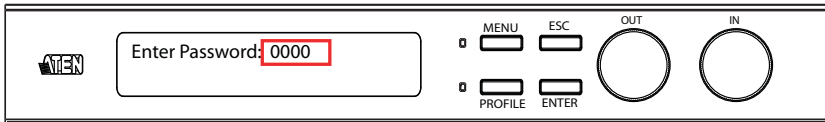
The VM0808H's front panel display operation is easy and convenient. Note the following front panel pushbutton functions:

- ◆ Use the **MENU** pushbutton to access the Menu page options: Set IP Port, Set Serial Port, Operation Mode, Security Mode, and Save/Load Profile (see *Menu Organization*, page 18)
- ◆ Use the **PROFILE** pushbutton to switch between the connection profiles which have been added to the Profile Selection list (see *Profile Pushbutton*, page 29 and *Profile Selection*, page 43)
- ◆ Use the **ESC** pushbutton to go back a level, return to the Main screen, or exit the page/screen
- ◆ Use the **ENTER** or tuner dial pushbuttons to select options and confirm operations
- ◆ Use the **IN** and **OUT** tuner dials to cycle forward or backward through the submenus or options

Enter Password

If you are accessing the VM0808H for the first time, or the VM0808H has been configured to require a password for local operation (see *Security Mode*, page 26), the password screen appears when the VM0808H is powered on. The cursor flashes on the first digit. Enter a 4-digit password to continue to the Main Screen.

Note: The default password is 1234.



To enter a password, do the following:

1. Turn the front panel **OUT** tuner dial left or right to move the cursor position.
2. Turn the front panel **IN** tuner dial left or right to cycle through the numbers (0–9).
3. Press the **OUT**, **IN**, or **ENTER** pushbutton to confirm the password and continue to the Main Screen.

Note: 1. If you enter an incorrect password, re-enter the correct password over the incorrect string.

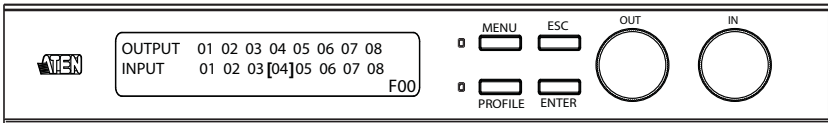
2. If Password Required (see *Security Mode*, page 26) is enabled, the LCD display time-out is 5 minutes.
-

Main Screen

The Main screen displays Output Ports 1–8 in sequential order across the top. The Input source displaying on each Output port is shown directly beneath it.

From the Main screen, you can set the Input-to-Output connections that route the signals from a selected Input port to the selected Output port. To do so, simply change the Input source port associated for each Output display by doing the following:

1. Turn the **OUT** tuner dial to select the input port you want to change.



When the cursor [] highlights the selected input port, use the **IN** tuner dial and turn it left or right to cycle through the available input sources.

Options are: Ports 1–8, NA (none)

2. Press the **OUT**, **IN**, or **ENTER** pushbutton to confirm your selection. The signal from the selected input port is now tied to the output port above it.
3. Repeat steps 1–3 for all required ports.

Menu Organization

The VM0808H has a built-in configuration utility via the front panel LCD, which can be controlled by pressing the **MENU** pushbutton. Cycle through the menu options using the tuner dials, starting from Set IP Port, in the order show in the table below:

Menu Page	Submenu Page(s)	
Set IP Port	IP Address	Save and Reset / Exit
	Subnet Mask	
	Gateway	
	Default IP Settings	Yes / No
Set Serial Port	Default Serial Setting	Yes / No
	Baud Rate	9600 / 19200 / 38400 / 115200
Operation Mode	Power On Detection	Off / On
	EDID	Default / Port1 / Remix
Security Mode	Password Required	Yes / No
	Change Password	Old Password New Password
Save / Load Profile	Save to a Profile No	0-31
	Call a Saved Profile No	

Menu Pushbutton

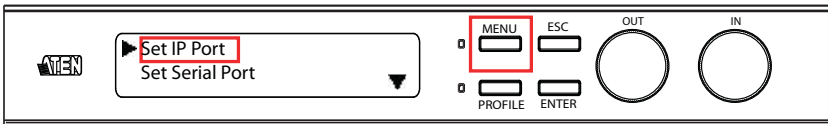
Use the **MENU** pushbutton to switch between the Main Screen and Menu page.

From the Menu page:

- ◆ Turn the front panel **OUT/IN** tuner dial to cycle through the options
- ◆ Use the **OUT**, **IN**, or **ENTER** pushbutton to make a selection
- ◆ Press **MENU** or **ESC** to return to the Main Screen

Set IP Port

To configure the VM0808H's IP port settings, from the Menu page, select Set IP Port.



The submenu provides four options: IP Address, Subnet Mask, Gateway and Default IP Settings.

IP Address

To set the VM0808H's IP address, do the following:

1. Select IP Address from the Set IP Port submenu. The cursor flashes on the first number:



2. Turn the front panel **IN** tuner dial left or right to cycle through and change each number.
3. Turn the front panel **OUT** tuner dial left or right to move [] the cursor to each position.
4. Press the **OUT**, **IN**, or **ENTER** pushbutton to confirm the IP address.
5. Press **ESC** to return to the previous step without change.

Note: The default IP address is 192.168.0.60

Subnet Mask

To set the VM0808H's Subnet Mask, do the following:

1. Select Subnet Mask from the Set IP Port submenu. The cursor flashes on the first number:



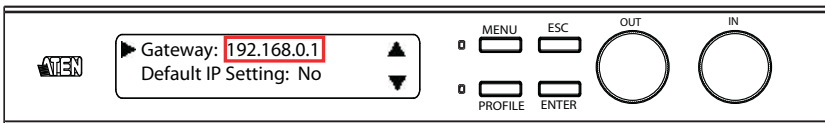
2. Turn the front panel IN tuner dial left or right to cycle through and change each number.
3. Turn the front panel OUT tuner dial left or right to move [] the cursor to each position.
4. Press the OUT, IN, or ENTER pushbutton to confirm the Subnet Mask.
5. Press ESC to return to the previous step without change.

Note: The default Subnet Mask is 255.255.255.0

Gateway

To set the VM0808H's Gateway, do the following:

1. Select Gateway from the Set IP Port submenu. The cursor flashes on the first number:



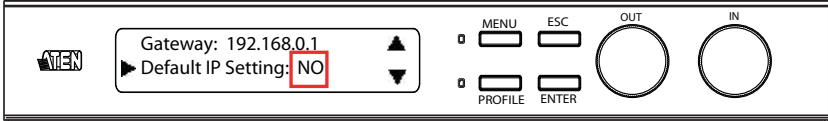
2. Turn the front panel IN tuner dial left or right to cycle through and change each number.
3. Turn the front panel OUT tuner dial left or right to move [] the cursor to each position.
4. Press the OUT, IN, or ENTER pushbutton to confirm the Gateway.
5. Press ESC to return to the previous step without change.

Note: The default Gateway is 192.168.0.1

Default IP Settings

To use / not use the VM0808H's Default IP Settings, do the following:

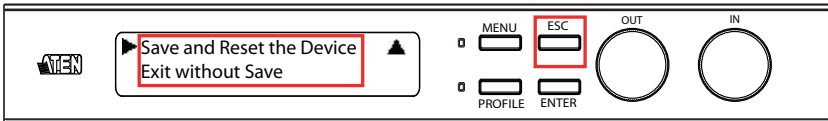
1. Select Default IP Settings from the Set IP Port submenu. The cursor flashes on the entry:



2. Turn the front panel IN tuner dial left or right to select Yes or No.
3. Press the OUT, IN, or ENTER pushbutton to confirm the change.

Save and Reset / Exit

After each operation, you are directed to the following page:

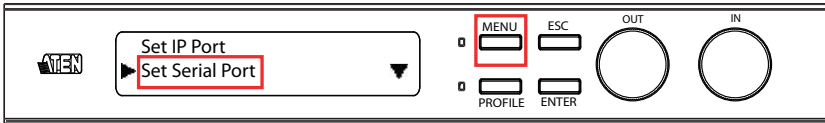


In this page, you can do the following:

- ◆ When the arrow is in Save and Reset the Device, press the OUT, IN, or ENTER to save all changes and restart the VM0808H; or
- ◆ Select Exit without Save to ignore changes and return to the Menu; or
- ◆ Press ESC to return to the previous step without change

Set Serial Port

To configure the VM0808H's serial port settings, select Set Serial Port from the Menu page.

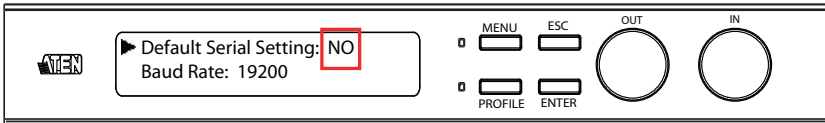


The submenu provides two options: Default Serial Settings, and Baud Rate, as follows:

Default Serial Settings

To use / not use the VM0808H's Default Serial Settings, do the following:

1. Select Default Serial Settings from the Set Serial Port submenu. The cursor flashes on the entry.



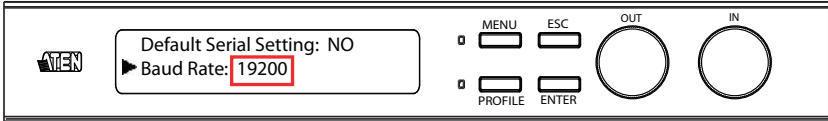
2. Turn the front panel IN/OUT tuner dial left or right to select Yes or No.
3. Press the OUT, IN, or ENTER pushbutton to confirm the change.

Note: The default serial setting is No.

Baud Rate

To set the VM0808H's baud rate, do the following:

1. Select Baud Rate from the Set Serial Port submenu. The cursor flashes on the first number:



2. Turn the front panel IN/OUT tuner dial to cycle through the options. Baud Rate options are 9600, 19200, 38400, and 115200.
3. Press the OUT, IN, or ENTER pushbutton to confirm the Baud Rate.

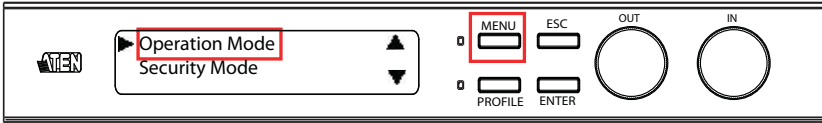
Note: The default baud rate is 19200.

Operation Mode

The Power On Detection and EDID features are adjusted from the Operation Mode menu.

- ◆ The Power on Detection mode automatically switches an Output port to the next powered-on source if its video source is powered off.
- ◆ EDID (extended display identification data) is used to automatically or manually setup different video configurations via EDID modes to utilize the best resolution across different monitors.

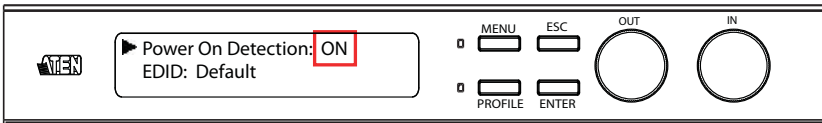
To adjust the Power On Detection or EDID mode, from the Menu page, select Operation Mode:



Power on Detection

To configure the VM0808H's Power On Detection settings, do the following:

1. With the arrow on Power On Detection, press the OUT, IN, or ENTER pushbutton to access the Power On Detection options.



2. Turn the front panel OUT/IN tuner dial to cycle through On or Off.
3. Press the OUT, IN, or ENTER pushbutton to confirm the change.

EDID

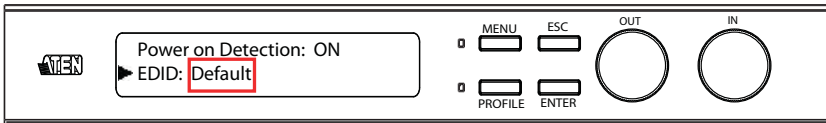
Extended Display Identification Data (EDID) is a data format that contains a display's basic information and is used to communicate with the video source/system.

The VM0808H lets users select an EDID Mode, which sets how the source device acquires a display's EDID, as follows:

- ◆ **Default** - EDID is set to the ATEN default configuration. The user can further choose between 14 ATEN default EDID settings available via the RS-232 command (see *EDID Commands*, page 55)
- ◆ **Port 1** - Implements the EDID of the connected display to Port 1, and passes it to the video source. The VM0808H is able to copy the EDID of any connected display to the input source (see *EDID Commands*, page 55)
- ◆ **Remix** - Implements the EDID of all connected displays. The VM0808H uses the common best resolution for all displays

To configure the VM0808H's EDID mode, do the following:

1. Turn the IN/OUT tuner dial to move the arrow to the EDID option, and press the OUT, IN, or ENTER pushbutton to select EDID.



2. Turn the front panel OUT/IN tuner dial to cycle through the options; Default, Port1, or Remix.
3. Press the OUT, IN, or ENTER pushbutton to confirm the change.

EDID Option	Description
Default	The default EDID will be passed to all video sources. Note: The default EDID is 00 (see page 56).
Port1	The EDID from port1 will be passed to all video sources.
Remix	Uses the EDID of each connected display according to its connection when the VM0808H is first powered on, or immediately after pressing ENTER to select the Remix option.

Note: The default EDID setting is Default.

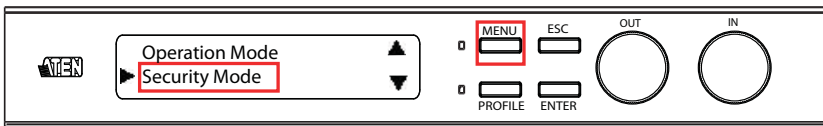
Security Mode

The Security Mode page allows you to configure the VM0808H's password-related settings – Password Required and Change Password.

The Password Required option sets the VM0808H to require a password for local operation after the units LCD display times out (default: 5 minutes) or is powered off/on.

The Change Password option allows you to set a new password for the VM0808H.

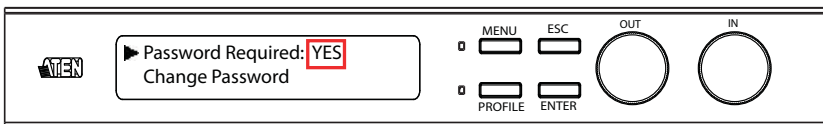
To adjust the VM0808H security settings, from the Menu page, select Security Mode:



Password Required

To configure the VM0808H's password requirement settings, do the following:

1. With the arrow on Password Required, press the OUT, IN, or ENTER pushbutton to access the Password Required options.

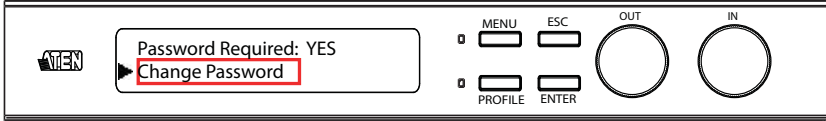


2. To set the VM0808H to require a password for local operation, turn the IN/OUT tuner dial to select Yes or No.
3. Press the OUT, IN, or ENTER pushbutton to confirm.

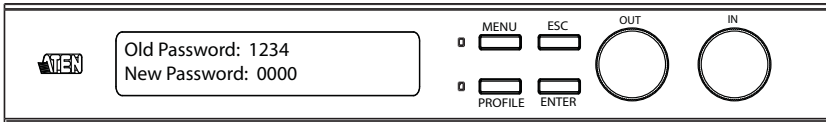
Change Password

To change the VM0808H's password, do the following:

1. With the arrow on Change Password, press the OUT, IN, or ENTER pushbutton to access the Change Password options.



2. When the cursor is at the Old Password field, enter the old password (see *Enter Password*, page 16). Then, press the OUT, IN, or ENTER pushbutton to go to the New Password field.



When the cursor is at the New Password field, Enter and create a new password.

3. Press the OUT, IN, or ENTER pushbutton to confirm the password change and continue to the Main screen.

Note: 1. If you enter an incorrect password, re-enter the correct password over the incorrect string.

2. If Password Required (see *Security Mode*, page 26) is enabled, the LCD displays time-out is 5 minutes.
-

Save / Load Profile

The VM0808H allows you to store up to 32 (numbered 0–31) different connection profiles that can be saved and recalled later. When profiles are saved, they are saved according to the current connection configuration reflected on the Main Screen. When you load a profile, the change is immediate and the profile number is shown in the lower right corner of the LCD display.

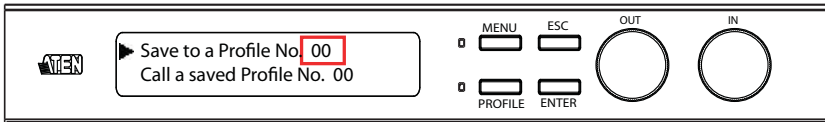
To save/load VM0808H profiles, from the Menu page, select Save/Load Profile:



Save/Load Profile

To save the current connection configuration as a profile, do the following:

1. With the arrow on Save to a Profile No., press the OUT, IN, or ENTER pushbutton to access the options
2. Turn the IN/OUT tuner dial to cycle through the available profile numbers (0–31).

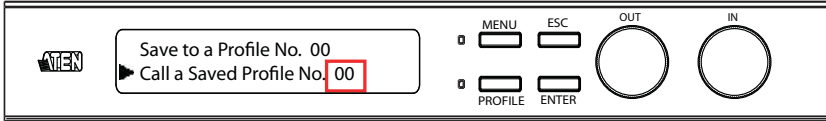


3. Press the OUT, IN, or ENTER pushbutton to save the profile into the selected profile number.

Call a Saved Profile No.

To call/use a saved profile, do the following:

1. With the arrow on Call a Saved Profile No., press the OUT, IN, or ENTER pushbutton to access the options
2. Turn the IN/OUT tuner dial to cycle through the stored profiles (0–31).

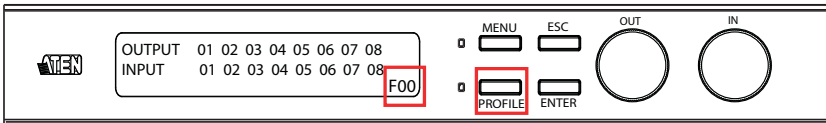


3. Press the OUT, IN, or ENTER pushbutton to load the selected profile.

Profile Pushbutton

From the Main screen, pressing the **PROFILE** pushbutton lets users conveniently switch between connection profiles that have been saved or added to the Profile List (see *Profile Selection*, page 43).

If a connection profile is currently in use, its profile number is shown from the Main screen on the lower right corner of the LCD display.



IR Remote Control Operation

The remote control allows you to change the Output port status of each display using the IR remote control device included with your VM0808H.

You can use the remote control to: change the Input source of any Output display, power on/off individual Output displays, or power on/off all Output displays simultaneously.

Before using the remote control you must first plug the IR External Receiver into the rear of the VM0808H and place the receiver where the IR signal can be reached (see *External IR Receiver Port*, page 6).

Change the Input source of an Output display

To change the Input source of an Output display, with the remote control, do the following:

1. Press the OUTPUT port number (1–8) you want to change.
2. Within 2 seconds press the INPUT port number (1–8) you want the OUTPUT port to display.*
3. Repeat steps 1-2 to change additional ports.

*For the change to occur the INPUT must be pressed within 2 seconds of pressing the OUTPUT number.

Power on/off individual Output displays

To power on/off individual Output displays, with the remote control, do the following:

1. Press the OUTPUT port number (1–8) you want to power on/off.
2. Within 2 seconds press the ON or OFF pushbutton.*
3. Repeat steps 1-2 to change the power status back on/off.

*If the ON or OFF pushbutton is not pushed within two seconds of pushing the OUTPUT's port number, all displays will be brought to a powered on or off status, respectively.

Power on/off all Output displays

To power on/off all Output displays simultaneously, with the remote control, do the following:

1. Press the ON or OFF pushbutton.*
2. Repeat step 1 to simultaneously change back the power status of all Output ports, to on or off, respectively.

*The ON or OFF pushbuttons bring all displays to the same power status, regardless of the individual power statuses.

This Page Intentionally Left Blank

Chapter 4

Remote Operation

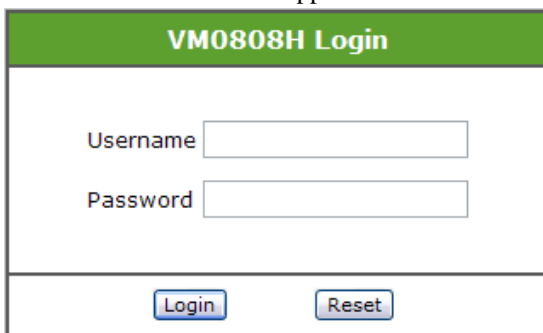
Overview

The VM0808H 8x8 HDMI Matrix Switch can be configured and controlled over a standard TCP/IP connection via its own Browser Graphical User Interface (GUI). Because the VM0808H can be accessed from anywhere on the LAN, WAN, or Internet, remote operators can log in via Web browsers using IE 7 and above. Security is ensured by password protection and user configurable time-out. The VM0808H supports three levels of remote users with various operational privileges, and up to 32 users can log into the GUI at one time. For full details, see the sections that follow.

Note: The VM0808H can also be accessed via a remote terminal session using Telnet. See *Telnet Operation*, page 48, for details.

Logging In

To access the Browser GUI, type the VM0808H's IP address into the address bar of any browser. If a Security Alert dialog box appears, accept the certificate - it can be trusted. The welcome screen appears:



The screenshot shows a web browser window with a green header containing the text "VM0808H Login". Below the header, there are two text input fields. The first is labeled "Username" and the second is labeled "Password". At the bottom of the form, there are two buttons: "Login" and "Reset".

- ◆ The VM0808H's default IP address is `http://192.168.0.60`. See *IP Setup*, page 39, for further information
- ◆ The default username and password are: administrator/password. See *User Management*, page 45, for further information

- ◆ The same user can not be logged in simultaneously

Note: The VM0808H username supports lower case letters only.

Connections Page

The VM0808H's GUI main page is the Connections page. This displays all active connections for control and configuration:

The screenshot shows the VM0808H GUI interface. At the top, there is a navigation bar with icons for Connections, Setup, Firmware, Profile, and User Management. The main content area displays a table for configuring connections between inputs and outputs.






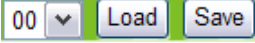

Inputs: Null port, Port_In_1, Port_In_2, Port_In_3, Port_In_4, Port_In_5, Port_In_6, Port_In_7, Port_In_8.

Outputs: Port_1 through Port_8.

The connection matrix is as follows:

	Port_#	Outputs																		
		Port_1	Port_2	Port_3	Port_4	Port_5	Port_6	Port_7	Port_8											
Null port	N	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_1	1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_2	2	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_3	3	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_4	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_5	5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_6	6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_7	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_8	8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Toolbar

Icon		Description
	Connections	This page displays the VM0808H's active connections and enables you to control them.
	Setup	This page enables you to configure the VM0808H's IP settings, serial settings and port names.
	Firmware	The page enables you to upgrade the VM0808H's firmware.
	Profile	This page allows you to add, delete and name connection profiles to the Selection Profile List, to use with the front panel PROFILE pushbutton.
	User Management	This page enables you to add, edit and delete- user information, permissions, and passwords.
	Save/Load Profiles	This menu option allows you to save and load stored profiles.
	Exit	This icon ends the session and closes the Web interface.

Configuring Connections

To configure a connection, from the connections page do the following:

The screenshot shows a web interface for configuring connections between input and output ports. At the top right, there are 'Submit' and 'Clear' buttons. The main area is divided into 'Inputs' and 'Outputs' sections. The 'Inputs' section has a dropdown menu for 'Port Number'. Below this is a grid of radio buttons representing connections between input ports (Port_In_1 to Port_In_8) and output ports (Port_1 to Port_8). The grid is currently showing a configuration where Port_In_1 is connected to Port_1, Port_In_2 to Port_2, Port_In_3 to Port_3, Port_In_4 to Port_4, Port_In_5 to Port_5, Port_In_6 to Port_6, Port_In_7 to Port_7, and Port_In_8 to Port_8. The connections are indicated by a gray dot in the radio button at the intersection of the input and output ports.

1. Select the radio button at the corresponding intersection of the input/output ports you want to connect, to connect each input source to an output display.

Note: Multiple connections can be changed simultaneously; simply select all the connections you want to configure.

2. Click the Submit button. The display reloads with the new status changes. Or, click the Clear button to revert to the stored configuration.

Status Colors

Connections display in colors to indicate their status, as follows:

- ◆ Gray – Connected
- ◆ White – Not Connected

Note: The latest connections will load automatically when the VM0808H is reset.

Save / Load Connection Profiles

The VM0808H allows you to store up to 32 (numbered 00–31) differently configured connection profiles that can be saved and recalled later by either connection method (locally via the unit's front panel pushbuttons and over IP via the GUI).



- ◆ Use the *Save* button to save the current connection profile.
- ◆ Use the drop-down list to select a saved connection profile and then click the *Load* button to switch to that profile.

Note: Profile 00 is the default.

Viewing Port Information

The input ports can be sorted by port name or port number. Use the drop-down menu to select.

Inputs		Outputs							
		Port_1	Port_2	Port_3	Port_4	Port_5	Port_6	Port_7	Port_8
Null port	N	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_1	1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_2	2	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_3	3	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_4	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_5	5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_6	6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Port_In_7	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Port_In_8	8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

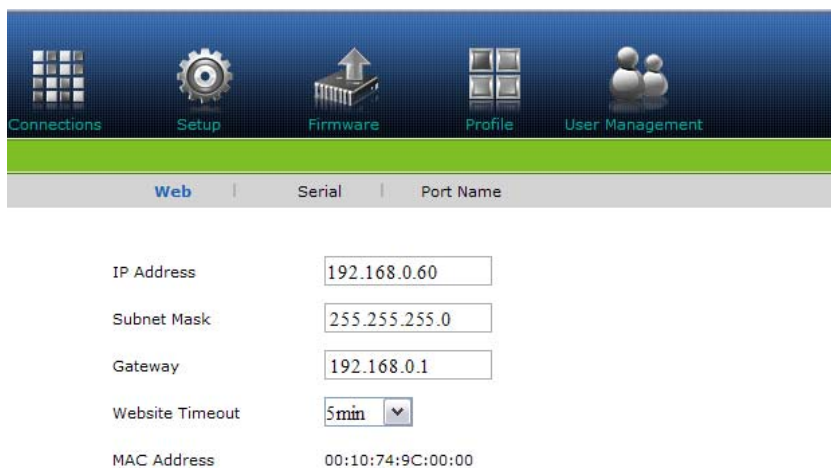
Move your cursor over the Output Port number to see the port name displayed. See *Port Name*, page 41, for further information.

Setup

Click the Setup icon to configure the VM0808H's IP and serial settings, and to name all the ports in your installation.

IP Setup

The Web Setup settings enable you to configure the VM0808H's Web interface connection. Changes take a few seconds and automatically redirect you to the IP address specified. Enter values and then click Save or Clear. Click Default Setting to use the following defaults:



IP Address	<input type="text" value="192.168.0.60"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="192.168.0.1"/>
Website Timeout	<input type="text" value="5min"/> ▼
MAC Address	00:10:74:9C:00:00

- ◆ IP Address – 192.168.0.60
- ◆ Subnet Mask – 255.255.255.0
- ◆ Default Gateway – 192.168.0.1
- ◆ Website Timeout* – 5 minutes

***This option controls how long an inactive web connection stays logged in to the VM0808H. Any changes will take effect immediately.**

Serial Setup

The Serial Setup settings enable you to configure the VM0808H's serial connection. Use the drop-down menu to select the value and then click **Save** or **Clear**. Click **Default Setting** to use the following defaults:



Baud Rate

- ◆ Baud Rate – 19200

Port Name

The Port Name page enables Administrators and Super Users to change the display name of the input and output ports.

To change the display name, enter a value and click **Save**. Click **Clear** to revert to the previous stored name.



Input Num.	Input Name	Output Num.	Output Name
1	Port_In_1 <input type="text"/> Save Clear	1	Port_Out_1 <input type="text"/> Save Clear
2	Port_In_2 <input type="text"/> Save Clear	2	Port_Out_2 <input type="text"/> Save Clear
3	Port_In_3 <input type="text"/> Save Clear	3	Port_Out_3 <input type="text"/> Save Clear
4	Port_In_4 <input type="text"/> Save Clear	4	Port_Out_4 <input type="text"/> Save Clear
5	Port_In_5 <input type="text"/> Save Clear	5	Port_Out_5 <input type="text"/> Save Clear
6	Port_In_6 <input type="text"/> Save Clear	6	Port_Out_6 <input type="text"/> Save Clear
7	Port_In_7 <input type="text"/> Save Clear	7	Port_Out_7 <input type="text"/> Save Clear
8	Port_In_8 <input type="text"/> Save Clear	8	Port_Out_8 <input type="text"/> Save Clear
9	<input type="text"/> Save Clear	9	<input type="text"/> Save Clear
10	<input type="text"/> Save Clear	10	<input type="text"/> Save Clear
11	<input type="text"/> Save Clear	11	<input type="text"/> Save Clear
12	<input type="text"/> Save Clear	12	<input type="text"/> Save Clear
13	<input type="text"/> Save Clear	13	<input type="text"/> Save Clear
14	<input type="text"/> Save Clear	14	<input type="text"/> Save Clear
15	<input type="text"/> Save Clear	15	<input type="text"/> Save Clear
16	<input type="text"/> Save Clear	16	<input type="text"/> Save Clear

(Max 16 characters, only 0-9,a-z,A-Z,_,-)

- ◆ Port Name: Input/Output Port Names can be the same. (Enter max 16 Characters, Using: 0-9, a-z, A-Z, _, -)
- ◆ Input Name: Enter name, Click “save” to name the given port
- ◆ Output Name: Enter name, Click “save” to name the given port

Firmware

Click the Firmware icon to view information about the VM0808H's firmware version and to upgrade. This is an Administrator function only



Enable to check firmware version **V1.1.101**

Filename

Browse...

To upgrade the VM0808H's firmware, do the following:

1. Use the *Browse* button to locate the firmware upgrade file.
2. Click **Upgrade Firmware** to start the upgrade.

Note: Check the box to enable the utility to compare the VM0808H's current firmware version with that of the upgrade files. If it finds that the VM0808H's firmware version is the same or higher than the selected upgrade version, it brings up a dialog box informing you of the situation and gives you the option to *Continue* or *Cancel*.

Profile Selection

The profile selection page allows you to set a series of connections profiles, that can be cycled through using the front panel PROFILE pushbutton. Once you have added connection profiles to the Profile Selection List, you can press the front panel PROFILE pushbutton to switch between the profiles which have been added to the Profile List.

Click the Profile icon to add, delete, or name connection profiles to the Profile Selection List.

Selection | Name

Profile

Profile List

Select	No.	Profile No.	Profile Name
<input checked="" type="radio"/>	1	2	Profile_2
<input type="radio"/>	2	4	Profile_4
<input type="radio"/>	3	3	Profile_3
<input type="radio"/>	4	0	Profile_0
<input type="radio"/>	5	17	Profile_17
<input type="radio"/>	6	7	Profile_7

Add/Delete Selection Profile

To Add a profile to the Profile List, do the following:

1. From the *Profile* drop-down menu, select the connection profile (00-31) you want to add.
2. Click the Add button.

By default new profiles are added to the bottom of the Profile List.

To Delete a connection profile from the Profile List, do the following:

1. Select the radio button of the profile you want to delete.
2. Click the Delete button.

Profile Selection Name

The Name page enables Administrators and Super Users to change the name of the selection profiles in the profile list.

To change the display name, enter a value and click **Save**. Click **Clear** to revert to the previous stored name.

Selection	Name
Profile Num.	Profile Name
00	Profile_0 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
01	Profile_1 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
02	Profile_2 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
03	Profile_3 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
04	Profile_4 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
05	Profile_5 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
06	Brett <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
07	Profile_7 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
08	Profile_8 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
09	Profile_9 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
10	Profile_10 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
11	Profile_11 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
12	Profile_12 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
13	Profile_13 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
14	Profile_14 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
15	Profile_15 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
Profile Num.	Profile Name
16	Profile_16 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
17	Profile_17 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
18	Profile_18 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
19	Profile_19 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
20	Profile_20 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
21	Profile_21 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
22	Profile_22 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
23	Profile_23 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
24	Profile_24 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
25	Profile_25 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
26	Profile_26 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
27	Profile_27 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
28	Profile_28 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
29	Profile_29 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
30	Profile_30 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>
31	Profile_31 <input type="text"/> <input type="button" value="Save"/> <input type="button" value="Clear"/>

- ◆ Profile Name: Names can be the same. (Enter max 16 Characters, Using: 0-9, a-z, A-Z, _, -)
- ◆ Profile Name: Enter name, Click “save” to name the given profile number

User Management

Click the User Management icon to add, edit, or delete user information, and to change the passwords for accessing the VM0808H's GUI.

Note: This is an Administrator only function.



Username	Description	Status
<input checked="" type="radio"/> administrator	Default_user	Administrator
<input type="radio"/> user_1	user_profile_1	User
<input type="radio"/> user_2	user_profile_2	Super User
<input type="radio"/> user_3	user_profile_3	Administrator
<input type="radio"/> user_4	user_profile_4	User

Operations are as follows:

- ◆ Add User – Click Add to add another user to the list. The VM0808H supports up to 32 users at one time
- ◆ Edit User – Use the radio button to select a user and click Edit to change the information. This option allows an Administrator to rename the user, set/reset the selected user's password, add a description of the user, and to set the user's privileges. See the next page for full details
- ◆ Delete User – Select user and click Delete to remove all user information

Add User

Username (Please enter 5-16 characters, only 0-9, a-z, _ -)

Password (Please enter 5-16 characters, only 0-9, a-z, _ -)

Confirm Password (Please enter 5-16 characters, only 0-9, a-z, _ -)

Description (Max 16 characters, only 0-9, a-z, A-Z, _ -)

Status

- Administrator**
Add/Edit/Delete all users, full rights
- Super User**
Full rights
- User**
Basic rights (make ties, save and recall the Profiles)

Submit

Reset

Click Add, to add a user, fill in the username, password, description, select the appropriate privileges (see *Privileges*, page 47), and click Submit.

Edit User

Username (Please enter 5-16 characters, only 0-9, a-z, _ -)

Password (Please enter 5-16 characters, only 0-9, a-z, _ -)

Confirm Password (Please enter 5-16 characters, only 0-9, a-z, _ -)

Description (Max 16 characters, only 0-9, a-z, A-Z, _ -)

Status

- Administrator**
Add/Edit/Delete all users, full rights
- Super User**
Full rights
- User**
Basic rights (make ties, save and recall the Profiles)

Submit

Reset

Use this page to rename a user, set/reset a user's password, add a description of a user, and to set a user's privileges for accessing the VM0808H's GUI. Usernames and passwords are case sensitive, and must be 5–16 alphanumeric characters. If a user is logged into the VM0808H's GUI, their user settings can't be edited, and the boxes will be grayed out.

Privileges

Use the Edit User function to set a user's privileges. The three available levels are as follows:

Username	<input type="text" value="user_1"/>	(Please enter 5-16 characters, only 0-9, a-z, _ -)
Password	<input type="password" value="••••••••"/>	(Please enter 5-16 characters, only 0-9, a-z, _ -)
Confirm Password	<input type="password" value="••••••••"/>	(Please enter 5-16 characters, only 0-9, a-z, _ -)
Description	<input type="text" value="user_profile_1"/>	(Max 16 characters, only 0-9, a-z, A-Z, _ -)

Status

Administrator
Add/Edit/Delete all users, full rights

Super User
Full rights

User
Basic rights (make ties, save and recall the Profiles)

- ◆ Administrator – this level provides full access and control of the VM0808H functions in addition to full User Management privileges
- ◆ Super User – this level provides full access and control with no User Management privileges
- ◆ User – this level provides basic functions only (create connections, save and recall presets)

Telnet Operation

The VM0808H can be operated and configured via a remote terminal session using Telnet.

To log in to the VM0808H by means of a Telnet session, do the following:

1. On your computer, open a terminal (command line) session.
2. At the prompt, key in the VM0808H's IP address in the following way:

```
telnet [IP address]:23
```
3. Press **Enter**. The login screen appears. At the login prompt, provide your Username and Password.

Configuration Menu

Once a Telnet connection to the VM0808H is established, the device's text-based Configuration Menu comes up, with the following items:

1. H – Call up the command list for help

Command list:

GT – Set gateway address

IM – Set IP subnet mask

IP – Set IP address

LO – Load connections from profile *nn*

PW – Change password

RI– Read what output is connected to *nn* input

RO – Read what output is connected to *nn* input

SB – Set the serial port baud rate

SS – Switch input to specified port

TI – Set timeout

VR – Software version information

Ctrl-Q – Quit

2. GT – Set gateway address

GT

Old gateway address: 192.168.0.1

New gateway address:

3. IM – Set IP subnet mask

IM

Old IP subnet mask: 255.255.255.0

New IP subnet mask:

4. IP – Set IP address

IP

Old IP address: 192.168.0.60

New IP address:

5. LO – Load connections from profile

LO 01

Load profile 01 OK.

6. PW – Change password

PW

Old password: *****

New password:

7. RI – Read what input is connected to *nn* output

RI 01

Output port 02 04 08 is connected input port 01

8. RO – Read what output is connected to *nn* input

RO 01

Input port 02 is connected to output port 01

9. SB – Set serial port baud rate

SB 96

Serial port baud rate is set to 9600

10. SS – Switch input to specified output

SS 01, 03

Switch input 01 to output 03 (00: Local Port)

11. SV – Save the current connections into profile

SV 01

Save the current connections into profile 01

12. TI – Set timeout

TI 30

Set 30 minute timeout

13. VR – Software version information

VR

Software version 1.0.

Note: 1. For further information about these functions, please reference the equivalent Browser GUI functions earlier in this chapter.

2. If you want to switch off an output port, please input:

SS 00, 02

Output port 02 is switched off

Chapter 5

RS-232 Commands

Overview

This chapter provides a complete list of the serial control protocol commands used when utilizing the RS-232 Serial Port so that an extra source device can function further as transmitter and receiver.

RS-232 Control Tool

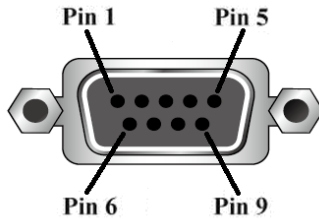
RS-232 serial operations in a VM0808H installation can be managed via a Graphical User Interface (GUI) on systems that are running Windows. In order to use this Control Tool, two separate items of software must be installed on all of the PCs in your installation – .NET Framework 2.0 and the Control Tool AP. Please download the VM0808H RS-232 Control Tool AP and user instructions from the ATEN website (www.aten.com).

Note: For Windows 7 64-bit systems, the following must be installed first:

- 1) Microsoft Office 64-bit Access Database software; and
 - 2) Microsoft 64-bit ODBC and OLEDB driver.
-

RS232 Pin Assignment

Pin	Description	Pin	Description
1	Not connected	6	Not connected
2	RXD	7	Not connected
3	TXD	8	Not connected
4	Not connected	9	Not connected
5	GND		



Configuring the Serial Port

The controller's serial port should be configured as follows:

Baud Rate	19200 (Default)
Data Bit	8 bits
Parity	None
Stop Bit	1 Bit
Flow Control	None

Switch Port Commands

The formula for Switch Port commands is as follows:

Switch Command + Input Command + Port number + Output Command + Port Number + Control + [Enter]

1. For example, to switch input port 02 to output port 05, type the following:
sw i02 o05 [Enter]
2. To turn off output on port 03, type the following:
sw o03 off [Enter]
3. To switch output port 04 to the next port, type the following:
sw o04 + [Enter]

The following table shows the possible values for switch commands:

Command	Description
sw	Switch command
Input Command	Description
i	Input command
Input Port Number	Description
xx	01-08 port (default is 01)
Output Command	Description
o	Output Command
Output Port Number	Description
yy	01-08 port (default is 01)
*	All output ports
Control	Description
on	Turn on
off	Turn off
+	Next port
-	Previous port
Enter	Description
[Enter]	Enter and send out the command

The following table shows the available command list:

Cmd	In	N1	Out	N2	C2	Enter	Description
sw	i	xx	o	yy *		[Enter]	Switch Input Port xx to Output Port yy (xx:01~08; yy:01~08, *)
sw			o	yy *	on off	[Enter]	Turn on Output Port yy Turn off Output Port yy (yy:01~08, *)
sw			o	yy *	+ -	[Enter]	Switch Next Input to Output Port yy Switch Previous Input to Output Port yy (yy:01~08, *)

Note: 1. Each command string can be separated with a space.

2. The **Port Number** command string can be skipped, and the default value will be used.
-

EDID Commands

You can set up which EDID mode the VM0808H uses, select one of the 14 available ATEN default EDID configurations, and copy the EDID of any connected display to the input source with the following command:

EDID Command + Control + [Enter]

For example, to change EDID to use the port1 setting, type the following:

edid port1 [Enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
edid	Enable EDID selection
Control	Description
portyy	Implement the EDID of the connected display to Port yy, and pass it to the video source (Note: yy: 01-08)
remix	Implement the EDID of all connected displays. The VM0808H uses the best resolution for all displays
defaultyy	Implements the specified ATEN default EDID configuration (Note: yy: 00-13, default is 00)

Note: For the port and default command strings, the yy variable must be entered for the command to work.

The following table shows the available command list:

Command	Control	Enter	Description
edid	portyy	[Enter]	The EDID from Port yy is passed to the video source (yy: 01-08)
edid	remix	[Enter]	The VM0808H implements the EDID of all connected displays and uses the best resolution for all displays (default)
edid	defaultyy	[Enter]	ATEN's default EDIDyy is passed to the video source (yy: 00-13, default is 00)

The ATEN default EDID configuration can be selected via the RS-232 command line:

Default EDID No.	Configuration
00	720p video, 2 ch audio (default)
01	1080p video, 2 ch audio
02	1080p video, 5.1 ch audio
03	1080p video, 7.1 ch audio
04	1080i video, 2 ch audio
05	1080i video, 5.1 ch audio
06	1080i video, 7.1 ch audio
07	3D 1080p, 2 ch audio
08	3D 1080p, 5.1 ch audio
09	3D 1080p, 7.1 ch audio
10	1024 x 768 DVI format
11	1280 x 1024 DVI format
12	1920 x 1080 DVI format
13	1920 x 1200 DVI format

Mute Commands

Enable or disable audio coming from the output port(s) using the following command:

Mute Command + Output Command + Port Number + Control + [Enter]

For example, to mute the audio coming from output port 1, type the following:

mute o01 on [enter]

The following table shows the possible values for mute commands:

Command	Description
mute	Enable / Disable audio of HDMI output port
Output Command	Description
o	Output command
Port number	Description
yy	01-08 port (default is 01)
*	All output ports
Control	Description
on	Mute on; audio from HDMI output port is disabled
off	Mute off; audio output enabled (default)

Note: 1. Each command string can be separated with a space.

2. Skip the output port command to mute or enable the audio of all output ports.

The following table shows the available command list:

Command	Output Port	Control	Enter	Description
mute	yy *	on	[Enter]	Audio on for output port yy (yy:01~08, *)
mute	yy *	off	[Enter]	Audio off for output port yy (default) (yy:01~08, *)

Save / Load Profile Commands

The formula for Save/Load Profile commands is as follows:

Command + Profile + Number + Control + [Enter]

- For example, to save the current connection configuration to profile 12, type the following:

profile f 12 save [Enter]

- To load profile 12, type the following:

profile f 12 load [Enter]

The following table shows the possible values for Save/load Profile commands:

Command	Description
profile	Save / Load profile
Profile	Description
f	Profile
Profile Number	Description
yy	00-31 (default is 00)
Control	Description
save	Save the current connection configuration
load	Load a saved profile

Note: Each command string can be separated with a space.

The following table shows the available command list:

Command	Profile	Num1	Control	Enter	Description
profile	f	yy	save	[Enter]	Save current connection configuration to profile yy (yy:00~31) (Default: 00)
profile	f	yy	load	[Enter]	Load saved profile yy (yy:00~31) (Default: 00)

Power On Detection Commands

Enabling Power On Detection means that the VM0808H automatically switches to the next powered on device when one of the HDMI source devices is powered off.

The formula for Power On Detection commands is as follows:

Power On Detection + Control command [Enter]

For example, to turn on the Power On Detection feature, input the following:

pod on [Enter]

The following tables show the possible values for the Power on Detection commands:

Command	Description
pod	Power On Detection function

Control	Description
on	Enable power on detection function
off	Disable power on detection function (default)

The following table shows the available command list:

Command	Control	Enter	Description
pod	on	[Enter]	Turn on power on detection
pod	off	[Enter]	Turn on power off detection (default)

Read Commands

The Read command enables you to view information from the device using the following command:

Read Command [Enter]

To Reads and displays information from the device, type:

read [Enter]

The following table show the possible values and formats for the command:

Command	Description
read	Reads and displays information from the VM0808H, including the input/output connections, audio/video and CEC status, EDID settings and the firmware version

CEC Commands

Consumer Electronics Control (CEC) allows interconnected HDMI devices to communicate and respond to one remote control. The formula for CEC mode selection commands is as follows:

CEC Command + Output Command + Port Number + Control (Off / On) [Enter]

For example, to enable CEC function on output port 1, type the following:

cec o01 on [enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
cec	CEC control
Output Command	Description
o	Output command
Port number	Description
yy	01-08 port (default is 01)
*	All output ports
Control	Description
off	Disable CEC (default)
on	Enable CEC

Note: Each command string can be separated with a space.

The following table shows the available command list:

Command	Output Port	Control	Enter	Description
cec	yy *	off	[Enter]	CEC off for output port yy (default) (yy:01~08, *)
cec	yy *	on	[Enter]	CEC on for output port yy (yy:01~08, *)

Baud Rate Setting

You can select the RS-232 Baud Rate you want the VM0808H to use. Options are 9600, 19200 (default) 38400 and 115200.

The formula for Baud Rate setting command is as follows:

Baud Command + Control [Enter]

For example, to select 38400 as your baud rate, type the following:

baud 38400 [enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
baud	Sets the RS-232 baud rate

Control	Description
9600	Use 9600 baud rate
19200	Use 19200 baud rate
38400	Use 38400 baud rate
115200	Use 115200 baud rate

Note: Each command string can be separated with a space.

The following table shows the available command list:

Command	Control	Enter	Description
baud	9600 / 19200 / 38400 / 115200	[Enter]	Sets the RS-232 baud rate

OSD Commands

Enable or disable the On-Screen Display (OSD) using the following command:

OSD Command + Control (On / Off) [Enter]

For example, to mute the audio, type the following:

osd on [enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
osd	Enable / Disable OSD

Control	Description
on	OSD is enabled (default)
off	OSD is disabled

Note: Each command string can be separated with a space.

The following table shows the available command list:

Command	Control	Enter	Description
osd	on	[Enter]	OSD on
osd	off	[Enter]	OSD off

Echo Commands

If the Echo feature is enabled: for each action from the front panel (pushbuttons), web GUI or IR interface, the VM0808H sends a corresponding acknowledgment message to the attached controller or management device via the RS-232 port.

The formula for the Echo command is as follows:

Echo Command + Control (on/off) + [Enter]

For example, to enable the Echo function, type the following:

echo on [enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
echo	Enable / Disable Echo function

Control	Description
on	Echo function on
off	Echo function off (default)

Note: Each command string can be separated with a space.

The following table shows the available command list:

Command	Control	Enter	Description
echo	on	[Enter]	Echo on
echo	off	[Enter]	Echo off

Blackscreen Commands

The Blackscreen function, when enabled, keeps connected displays awake even if there is no source input device detected or when a port is turned off (via the Switch port command).

The formula for the Blackscreen command is as follows:

blackscreen Command + Control (on/off) + [Enter]

For example, to enable the Blackscreen function, type the following:

blackscreen on [enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
blackscreen	Enable / Disable Blackscreen function

Control	Description
on	Blackscreen function on (default)
off	Blackscreen function off

Note: Each command string can be separated with a space.

The following table shows the available command list:

Command	Control	Enter	Description
blackscreen	on	[Enter]	Blackscreen on
blackscreen	off	[Enter]	Blackscreen off

Reset

You can reset the VM0808H to default factory settings. The formula for the Reset command is as follows:

Reset Command [Enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
reset	Reset the device settings

The following table shows the available command list:

Command	Enter	Description
reset	[Enter]	Reset the device settings

Acknowledge

After commands are sent acknowledge messages are returned.

Ack	Description
Command OK	Command is correct and function executed
Command Incorrect	Unavailable command or parameters

RS-232 Pin Assignment

Pin	Description	Pin	Description
1	Not connected	6	Not connected
2	RXD	7	Not connected
3	TXD	8	Not connected
4	Not connected	9	Not connected
5	GND		

This Page Intentionally Left Blank

Safety Instructions

General

- ◆ Read all of these instructions. Save them for future reference.
- ◆ Follow all warnings and instructions marked on the device.
- ◆ This product is for indoor use only.
- ◆ Do not place the device on any unstable surface (cart, stand, etc.). If the device falls, serious damage will result.
- ◆ Do not use the device near water.
- ◆ Do not place the device near, or over, radiators or heat registers.
- ◆ The device cabinet is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.
- ◆ The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built in enclosure unless adequate ventilation has been provided.
- ◆ Never spill liquid of any kind on the device.
- ◆ Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- ◆ The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- ◆ The device is designed for IT power distribution systems with 230V phase-to-phase voltage.
- ◆ To prevent damage to your installation it is important that all devices are properly grounded.
- ◆ The device is equipped with a 3-wire grounding type plug. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not attempt to defeat the purpose of the grounding-type plug. Always follow your local/national wiring codes.
- ◆ Do not allow anything to rest on the power cord or cables. Route the power cord and cables so that they cannot be stepped on or tripped over.

- ◆ If an extension cord is used with this device make sure that the total of the ampere ratings of all products used on this cord does not exceed the extension cord ampere rating. Make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.
- ◆ To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or un-interruptible power supply (UPS).
- ◆ Position system cables and power cables carefully; be sure that nothing rests on any cables.
- ◆ Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.
- ◆ Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.
- ◆ If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.
 - ◆ The power cord or plug has become damaged or frayed.
 - ◆ Liquid has been spilled into the device.
 - ◆ The device has been exposed to rain or water.
 - ◆ The device has been dropped, or the cabinet has been damaged.
 - ◆ The device exhibits a distinct change in performance, indicating a need for service.
 - ◆ The device does not operate normally when the operating instructions are followed.
- ◆ Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that will require extensive work by a qualified technician to repair.

Rack Mounting

- ◆ Before working on the rack, make sure that the stabilizers are secured to the rack, extended to the floor, and that the full weight of the rack rests on the floor. Install front and side stabilizers on a single rack or front stabilizers for joined multiple racks before working on the rack.
- ◆ Always load the rack from the bottom up, and load the heaviest item in the rack first.
- ◆ Make sure that the rack is level and stable before extending a device from the rack.
- ◆ Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.
- ◆ Make sure that all equipment used on the rack – including power strips and other electrical connectors – is properly grounded.
- ◆ Ensure that proper airflow is provided to devices in the rack.
- ◆ Ensure that the operating ambient temperature of the rack environment does not exceed the maximum ambient temperature specified for the equipment by the manufacturer.
- ◆ Do not step on or stand on any device when servicing other devices in a rack.

Technical Support

International

- ◆ For online technical support – including troubleshooting, documentation, and software updates: **<http://eservice.aten.com>**
- ◆ For telephone support, see *Telephone Support*, page iii:

North America

Email Support		support@aten-usa.com
Online Technical Support	Troubleshooting Documentation Software Updates	http://www.aten-usa.com/support
Telephone Support		1-888-999-ATEN ext 4988

When you contact us, please have the following information ready beforehand:

- ◆ Product model number, serial number, and date of purchase.
- ◆ Your computer configuration, including operating system, revision level, expansion cards, and software.
- ◆ Any error messages displayed at the time the error occurred.
- ◆ The sequence of operations that led up to the error.
- ◆ Any other information you feel may be of help.

Specifications

Function		VM0808H
Connectors	HDMI In	8 x HDMI Type A Female (Black)
	HDMI Out	8 x HDMI Type A Female (Black)
	Ethernet	1 x RJ-45 Female
	RS-232	1 x DB-9 Female (Black)
	IR Input Port	1 x Mini Stereo Jack Female (Black)
	Power	1 x 3-prong AC Socket
Switches	In	1 x Tuner Button
	Out	1 x Tuner Button
	Esc	1 x Pushbutton
	Menu	1 x Pushbutton
	Profile	1 x Pushbutton
	Enter	1 x Pushbutton
	Power	1 x Rocker
LEDs	Menu	1 (Green)
	Profile	1 (Green)
Video Resolution		480p, 720p, 1080i, and 1080p (1920 x 1080); VGA, SVGA, SXGA, UXGA and WUXGA (1920 x 1200)
I/P Rating		100–240VAC; 50-60Hz; 1A
Power Consumption		120V / 32W; 230V / 34W
Environment	Operating Temp.	0–50°C
	Storage Temp.	-20–60°C
	Humidity	0–80% RH, Non-condensing
Physical Properties	Housing	Metal
	Weight	4.01 kg
	Dimensions (L x W x H)	43.24 x 27.12 x 4.40 cm

Limited Warranty

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or update. For further inquiries, please contact your direct vendor.