VM0404H 4x4 HDMI Matrix Switch

RS-232 Control Tool

User Manual

V1.0.062

ATEN RS-232 Control Tool

ATEN
Simply Better Connections

VM0404H

- Switch Port
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Output   Port 1

Input   Display

- A   · ON ·
- B   · OFF ·
- C
- D

sw o01 i01   **SEND**

ACK: Connect to 'COM1' Port.

∗ : default

VanCryst
Professional A/V Solutions by ATEN
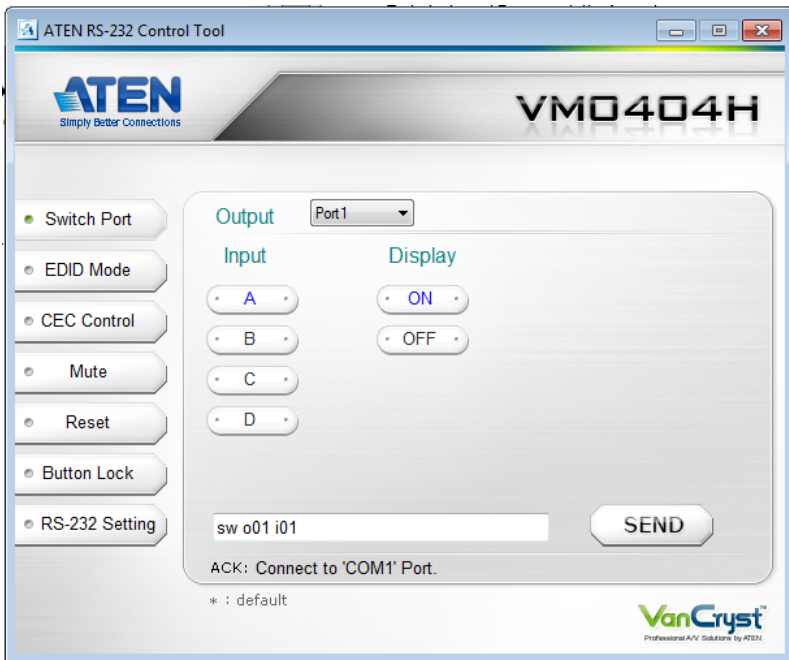
FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

◆ Reorient or relocate the receiving antenna;

◆ Increase the separation between the equipment and receiver;

◆ Connect the equipment into an outlet on a circuit different from that which the receiver is connected;

◆ Consult the dealer or an experienced radio/television technician for help.

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。

RS-232 Control Tool Operation

Overview

The VM0404H 4x4 HDMI Matrix Switch has a built-in bi-directional RS-232 serial interface that allows system control through a high-end controller, PC, and/or home automation / home theater software package. RS-232 serial operations in a VM0404H 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. This procedure is detailed in the following sections.

Before You Begin

.NET Framework 2.0

To install .NET Framework on your PC, do the following:

1. Download the executable file from the Microsoft Download Center online, and run it.

2. Follow the instructions on the screen. The installation applet will automatically detect the operating system and install the correct drivers

RS-232 Control Tool AP

To download the RS-232 Control AP in order to use the Browser GUI to manage the serial commands in your VM0404H installation, do the following:

1. Download the RS-232 Control Tool AP from the ATEN website (www.aten.com).

2. Save the file to a convenient location.

3. Run the file to open the RS-232 Control Tool GUI.

GUI Main Page

The RS232 Control Tool is a convenient and intuitive method to manage the RS-232 commands in your VM0404H installation from one screen. To invoke the GUI, simply click on the icon in your file system. The interface appears, and opens on the Switch Port page by default, as below:
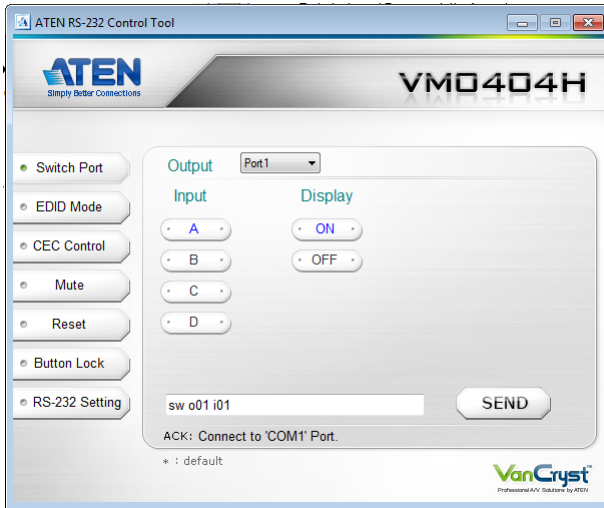
The various elements of the GUI are described in the following sections.

Switch Port

On the *Switch Port* page, the following actions are possible:

- Select the **Output** port from the drop-down menu (options are Ports 1–4 and default *).
- Select the **Input** port by clicking its button (options are A–D).
- Turn the **Display** On or Off.
- Click **Send** to send the command.

Switch Port Commands

These actions can also be performed by keying the command into the text box, and clicking **Send**.

The available formulas for Switch Port commands are as follows:

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

For example, to switch input port 02 (audio and video) to output port 05, type the following:

sw i02 o03 [Enter]

2. Switch Command + Output Command + Port Number + Control + [Enter]

For example, to turn off video output on port 03, type the following:

sw o03 video off [Enter]

3. Switch Command + Output Command + Port Number + Control + [Enter]

For example, to switch the next output to port 2, type the following:

sw i02 + [Enter]

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.

Possible Values

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	01-04 port (default is 01)

Output Command	Description
o	Output Command

Output Port Number	Description
yy	01-04 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

EDID

The VM0404H features EDID Expert technology that allows you to set up different configurations via different EDID modes.
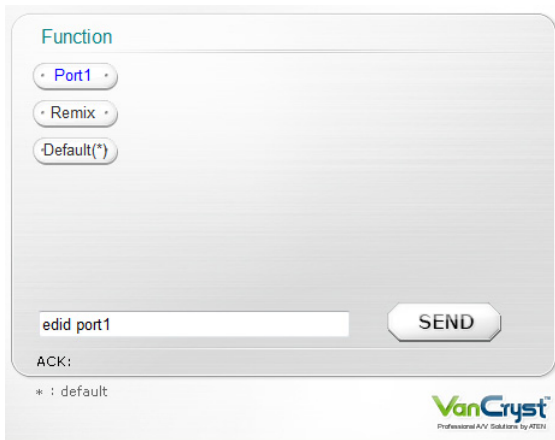
Use the buttons to select an EDID configuration. Options are as follows:

- Select **Port 1** to implement Port 1's EDID on all displays in the installation.

- Select **Remix** to use the EDID of the connected displays according to each connection when the VM0404H is powered on.

- Select **Default** to implement the default EDID on all video sources.

EDID Commands:

The formula for EDID commands are as follows:
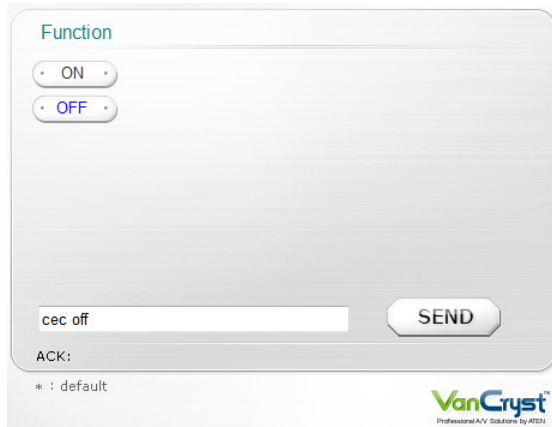
1. EDID Command + Control + [Enter]

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

 edid port1 [Enter]

CEC

On the *CEC* page, the following actions are possible:

- ◆ Turn the CEC control On or Off by clicking on the buttons.
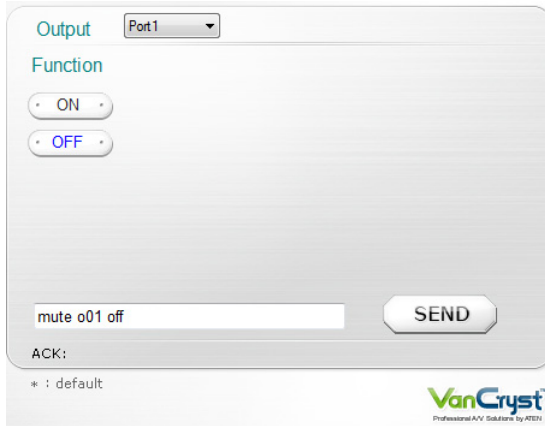- ◆ Click **Send** to send the command

CEC Commands

The formula for CEC commands is as follows:

1. CEC Command + Control + [Enter]

For example, to turn on CEC control, type the following:

cec on [Enter]

Mute

On the *Mute* page, the following actions are possible:

* Select an **Output** port from the drop-down menu.
* Click **ON** to mute the selected port
* Click **OFF** to enable the audio of the selected port

Mute Commands

The formulas for Mute commands are as follows:

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

For example, to mute output port 03, type the following:

> **mute o03 on [Enter]**

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

For example, turn on audio at output port 02, type the following:

> **mute o02 off [Enter]**

Reset

On the *Reset* page, the following actions are possible:

✦ Click **Reset** to reset the VM0404H back to the default factory settings.
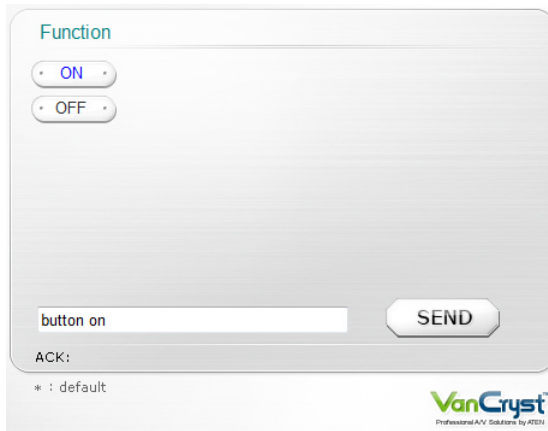
Reset Command

The formula for Reset commands is as follows:

1. Reset Command + [Enter]

For example, to reset the device back to the default factory settings, type the following:

reset [Enter]

Button Lock

On the *Button Lock* page, the following actions are possible:

 Click **ON** or **OFF** to enable/disable the VM0404H's front panel pushbuttons.

Reset Command

The formula for Button Lock commands is as follows:

1. Panel Button Command + Control + [Enter]

For example, to enable the front panel pushbuttons, type the following:

button on [Enter]

RS-232 Setting

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

Baud Rate	19200
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

To select the serial port, do the following:

◆ Select a port from the drop-down menu and click **CONNECT**.

If the port has been selected, the Acknowledgment message will read:

Opened port COM1 successfully

Verification
After entering a command, a verification message appears at the end of the command line as follows:

◆ **Command OK** - indicates that the command is correct and successfully performed by the switch

◆ **Command incorrect** - indicates that the command has the wrong format and/or values.