

Translator VGA to HDMI

VGA to HDMI Converter/Scaler

Installation and Operation Manual



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LIMITED WARRANTY

Rose Electronics® warrants the VGA to HDMI Translator to be in good working order for one year from the date of purchase from Rose Electronics or an authorized dealer. Should this product fail to be in good working order at any time during this one-year warranty period, Rose Electronics will, at its option, repair or replace the Unit as set forth below. Repair parts and replacement units will be either reconditioned or new. All replaced parts become the property of Rose Electronics. This limited warranty does not include service to repair damage to the Unit resulting from accident, disaster, abuse, or unauthorized modification of the Unit, including static discharge and power surges.

Limited Warranty service may be obtained by delivering this unit during the one-year warranty period to Rose Electronics or an authorized repair center providing a proof of purchase date. If this Unit is delivered by mail, you agree to insure the Unit or assume the risk of loss or damage in transit, to prepay shipping charges to the warranty service location, and to use the original shipping container or its equivalent. You must call for a return authorization number first. Under no circumstances will a unit be accepted without a return authorization number. Contact an authorized repair center or Rose Electronics for further information.

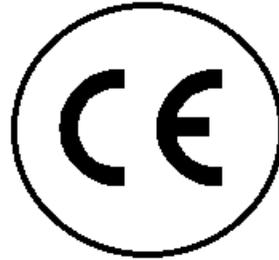
ALL EXPRESS AND IMPLIED WARRANTIES FOR THIS PRODUCT INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO A PERIOD OF ONE YEAR FROM THE DATE OF PURCHASE, AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

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DECLARATIONS OF CONFORMITY

This is to certify that, when installed and used according to the instructions in this manual, the units listed and described here are shielded against the generation of radio interferences in accordance with the application of Council Directives 2014/30/EU and 2014/30/EU.



This equipment has been 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 their own expense.

The manufacturer complies with the EU Directive 2012/19/EU on the prevention of waste electrical and electronic equipment (WEEE). The device labels carry a respective marking.

These devices comply with Directive 2011/65/EU of the European Parliament and of the council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS 2, RoHS II). The device labels carry a respective marking.

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INTRODUCTION

Disclaimer

While every precaution has been taken in the preparation of this manual, the manufacturer assumes no responsibility for errors or omissions. Neither does the manufacturer assume any liability for damages resulting from the use of the information contained herein. The manufacturer reserves the right to change the specifications, functions, circuitry of the product, and manual content at any time without notice.

The manufacturer cannot accept liability for damages due to misuse of the product or other circumstances outside the manufacturer's control. The manufacturer will not be responsible for any loss, damage, or injury arising directly or indirectly from the use of this product (See limited warranty).

System Introduction

Thank you for choosing the Rose Electronics VGA to HDMI Translator. This product offers an easy and instant approach for converting analog PC video (VGA) with either digital audio (S/PDIF) or analog stereo audio to digital HDMI. VGA devices such as a PC with S/PDIF or analog stereo audio can easily connect to your HDMI TV, simplifying presentations, demonstrations, and digital signage applications. The product will also interface an analog KVM switch or VGA extender to a remote HDMI monitor.

The instructions in this manual assume a general knowledge of computer installation procedures, familiarity with cabling requirements, and some familiarity with video scaling and conversion.

Features

- Output modes are RGB, YCbCr444, YCbCr442, selectable as 480p, 720p, 1080i and 1080p
- Maximum pixel rate is 165MHz
- Stereo audio and S/PDIF input supported
- De-interlacer supported
- Active video area adjustment supported
- Firmware upgradeable via mini USB port
- IR remote control
- OSD control interface
- Supports noise reduction and video enhancement features
- Over / under scanning adjustable
- Video H/V mirror supported
- Active video area adjustment supported
- USB firmware upgradable for expanding compatibility
- Wall-mount housing design for easy installation

Package Contents

The package contents consist of the following items:

- VGA to HDMI Translator
- IR control unit
- External power supply
- Power cable
- User manual
- Installation software

Additional Items that may be required

- | | | |
|---------------|---------------|------------------|
| ■ HDMI cable | CAB-HDMIMM006 | 6ft (2.0 meter) |
| | CAB-HDMIMM010 | 10ft (3.0 meter) |
| ■ VGA cable | CAB-CXVMF005 | 6ft (2.0 meter) |
| | CAB-CXVMF010 | 10ft (3.0 meter) |
| ■ Audio cable | CAB-SPMM006 | 6ft (2.0 meter) |
| | CAB-SPMM010 | 10ft (3.0 meter) |

These items may be ordered separately from Rose Electronics

All references to HDMI and VGA cables in this document refer to the maximum recommended distances for each cable type. Maximum recommended cable distances should not be exceeded.

INSTALLATION and OPERATION

Installing the VGA to HDMI Translator

Unpack the VGA to HDMI Translator and check the contents of the package.

Before installing the Translator in its final mounting position, it is recommended to set up the product on a desktop, connect the PC and monitor and any audio peripherals required, and test the product operation.

Once this operation has been confirmed, the Translator can then be fully installed into the operational mounting. Connect the HDMI/VGA/Audio cables to the Translator and power on the product.

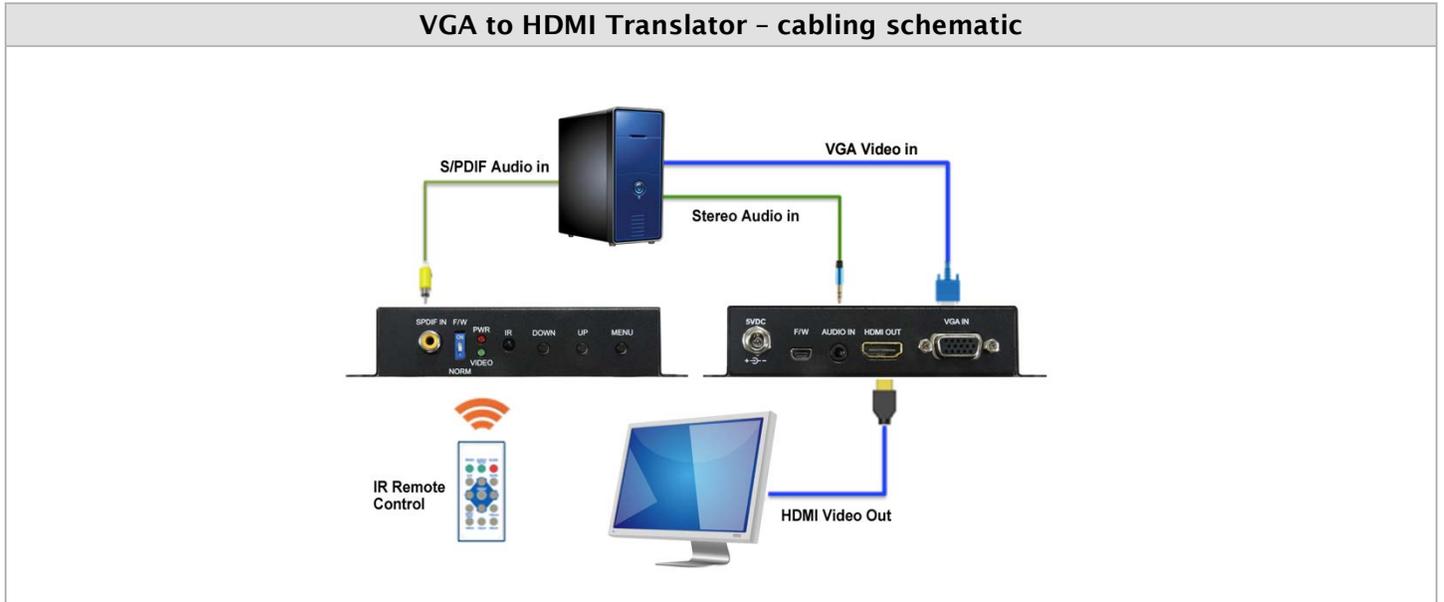


Figure 1. VGA to HDMI Translator cabling layout diagram

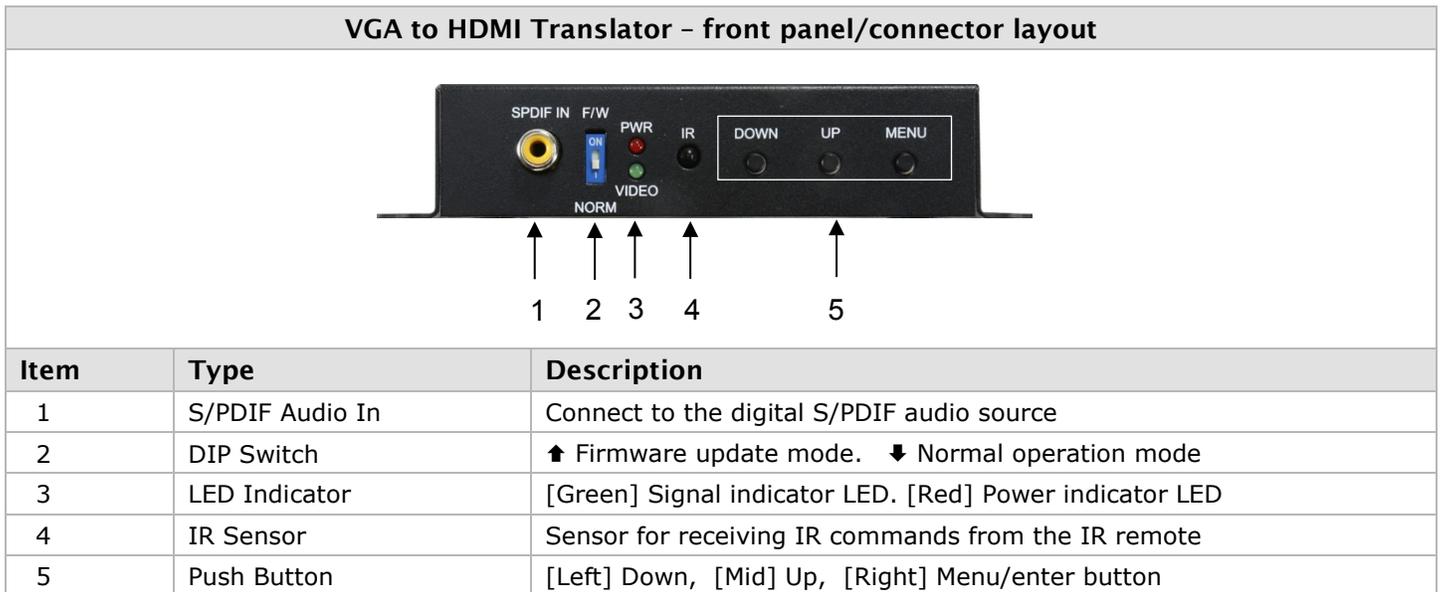
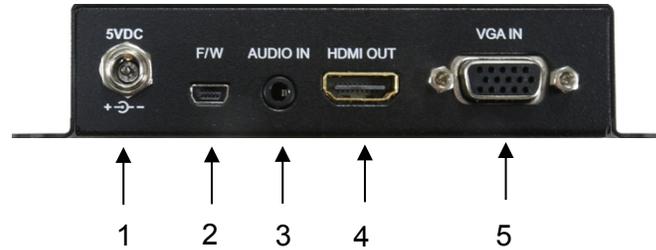


Figure 2. VGA to HDMI Translator front panel connectors and indicators

VGA to HDMI Translator - rear panel/connector layout



Item	Type	Description
1	+5V DC	Interlocking power jack for 5V DC power supply unit
2	Mini USB	Firmware update and control port
3	Stereo audio in	Connect to analog stereo audio source
4	HDMI out	Connect to an HDMI display with an HDMI male-male cable
5	VGA in	Connect to a VGA video source

Figure 3. VGA to HDMI Translator rear panel connectors and indicators

Connecting cables to the VGA to HDMI Translator

- Ensure that power is disconnected from the VGA to HDMI Translator.
- Connect the VGA cable from the video source and the HDMI display cable. Connect the analog audio and S/PDIF cables if required. (Make sure the cables are within the recommended cable distance)
- Connect the external 5V power supply and power on the VGA to HDMI Translator.

Controlling the VGA to HDMI Translator

There are 3 methods available to control the Translator.

- a) OSD controlled by push-button
- b) IR Control
- c) Control via the mini USB port

Push-Button Control

Select the OSD menu to display on the HDMI monitor by pushing the menu button on the front panel. Use the up/down buttons to scroll through the menus. Use the menu button to select “enter”

OSD Menu and Settings		
Output Setup	Output resolution	
	Output mode	RGB, YCbCr444, YCbCr422
	Default pattern	Disable, white, cross, hatch, color, grey, windows, H-Ramp, W-HRamp, W-VRamp, diagonal
	Audio source	Stereo, S/PDIF
Image	Contrast	0~255 of contrast level
	Brightness	0~255 of brightness level
	Saturation	0~255 of saturation level
	Hue	0~255 of hue level
	Black/White extension	Off, On
	Color tone	Off, skin, green
	Edge enhance	Typical, Mid, Maximum, Off
	Sharpness	0~127 of sharpness level
Adjustment	Under/Over scan	-50% - 50% of scan level
	Aspect ratio	16:9, 4:3
	Horizontal mirror	Off, On
	Vertical mirror	Off, On
	Horizontal shift	-100~100 of horizontal shift level
	Vertical shift	-50~50 of vertical shift level
System	Input resolution information	
	Firmware version	
	Factory reset	

Table 1. OSD menu and settings

IR Remote Control

The VGA to HDMI Translator operation can be controlled using the included IR controller keypad

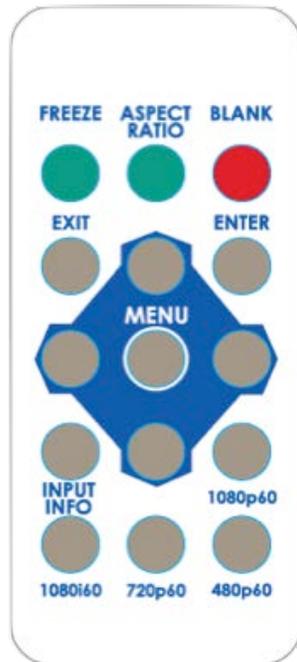


Figure 4. Infrared remote control

Button	Function
Freeze	Freeze video
Aspect Ratio	Aspect ratio change
Blank	Blank video
Exit	Exit OSD
Enter	Enter key
Up	Up key
Left	Left key
Right	Right key
Down	Down key
Menu	Menu on
Input Information	Source resolution information
1080p@60	Select 1080p@60 output resolution
1080i@60	Select 1080i@60 output resolution
720p@60	Select 720p@60 output resolution
480p@60	Select 480p@60 output resolution

Table 2. IR controller functions

Remote Control using the Mini USB Port

To use the remote control via the mini USB port function, first install the included software on a Windows PC using a mini USB connection cable (not included).

Once installed, follow the screens below to set-up and control the Translator.

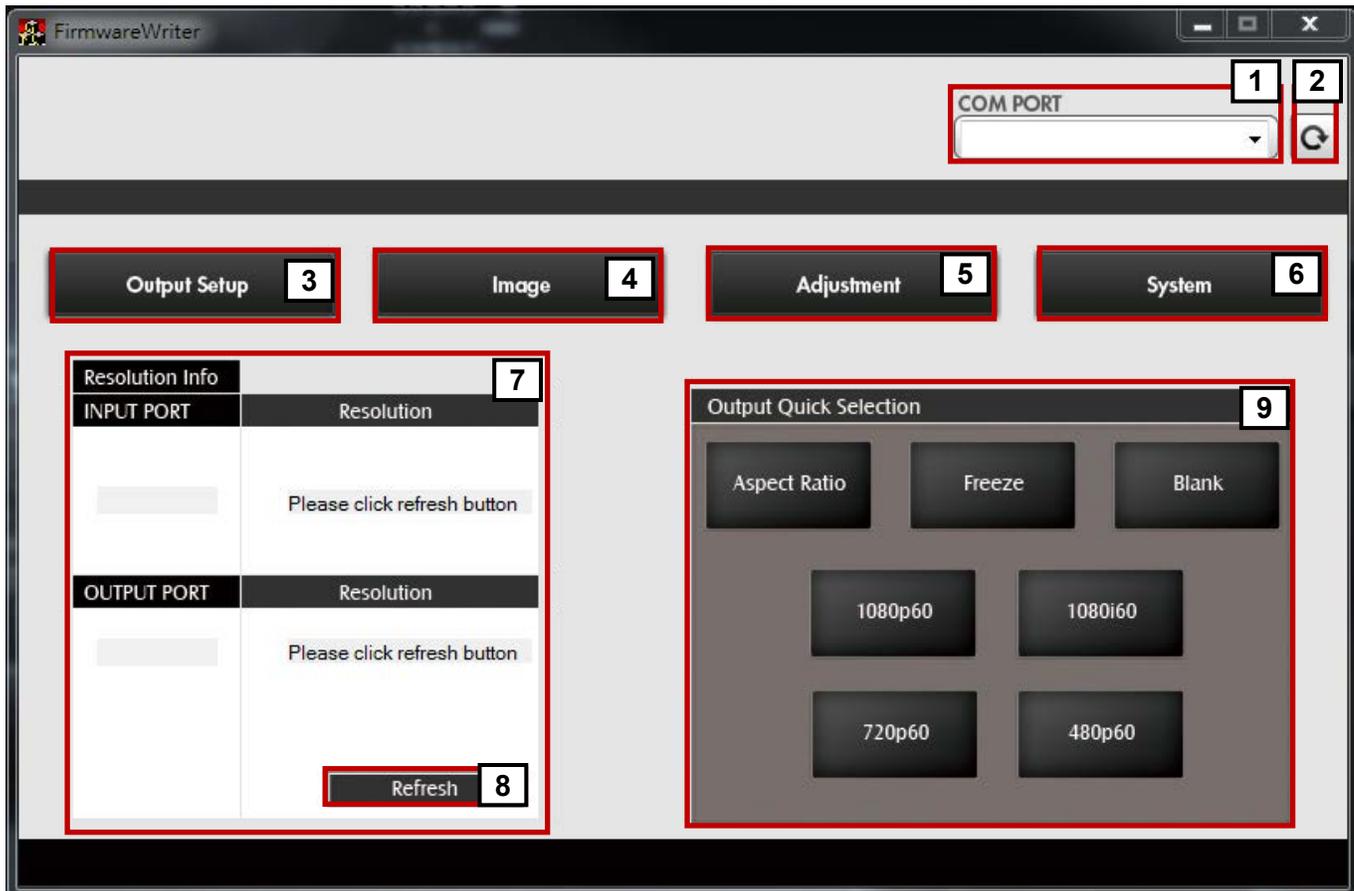


Figure 5. OSD on mini USB port

Mini USB Port - OSD Control Buttons	
1	COM Port Selection
2	COM Port Detection Button
3	Output Setup Button
4	Image Button
5	Adjustment Button
6	System Button
7	Input / Output Resolution Info
8	Refresh Input / Output Resolution Info Button
9	Output Quick Selection Button

Table 3. OSD control buttons – mini USB port

1. Com Port Selection

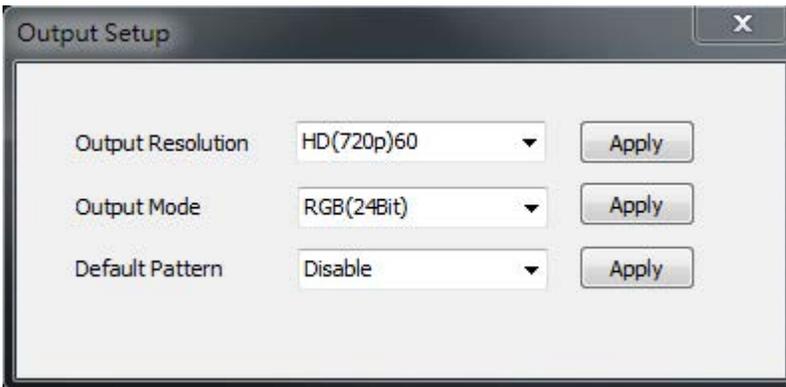
Select the available Comm Port



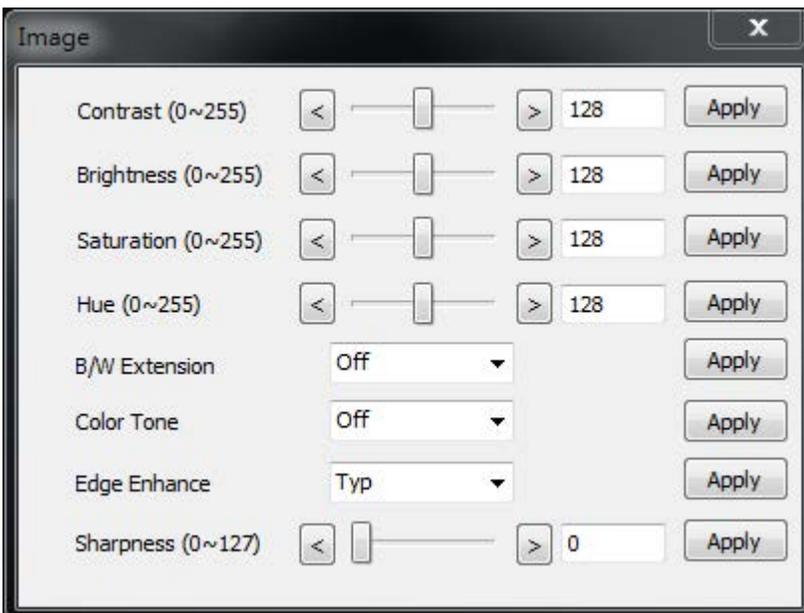
2. Comm Port Detection Button

Click this  button to detect the Comm Port

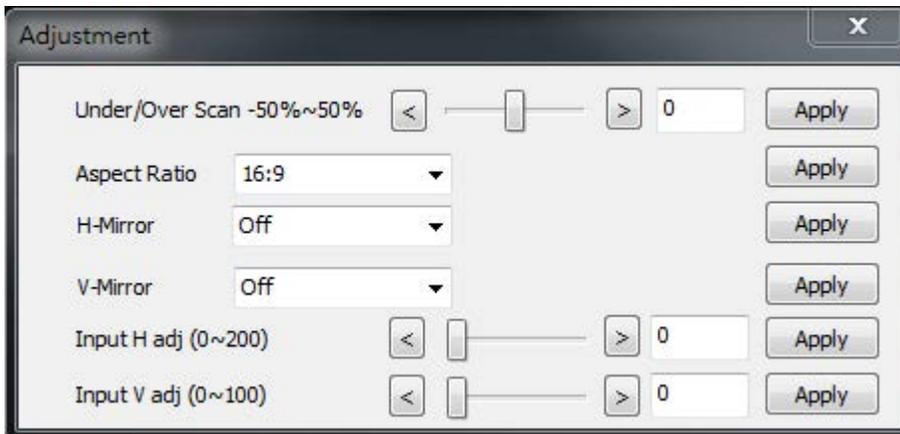
3. Output Setup Button



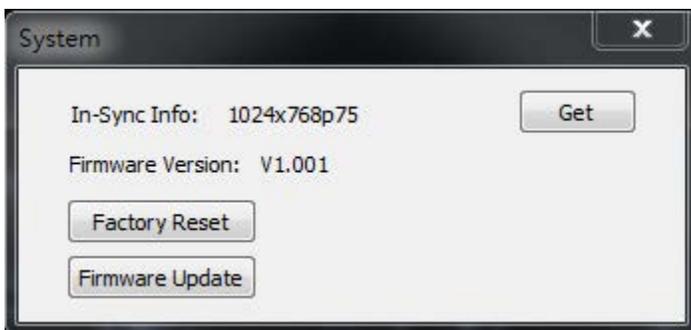
4. Image Button



5. Adjustment Button



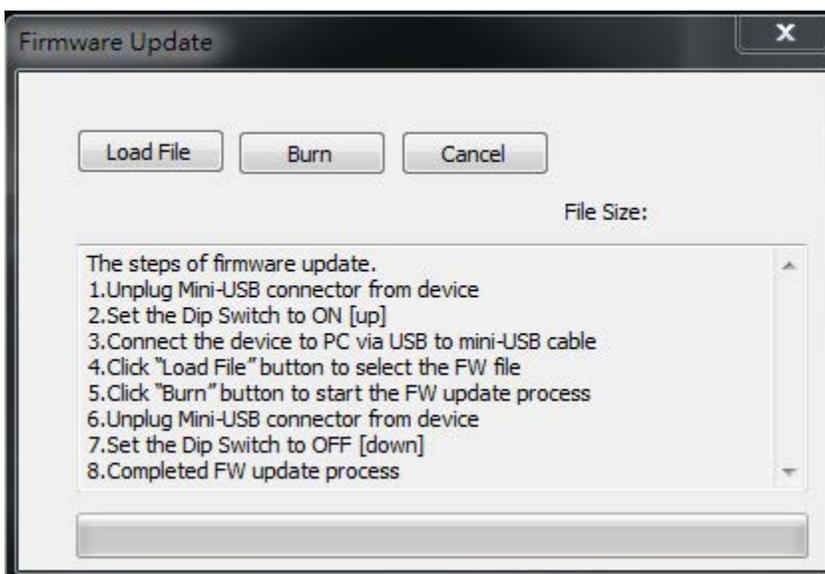
6. System Button



In-Sync Info: To view the current input resolution

Factory Reset Button

Firmware Update Button: Follow the steps outlined in the display below



Follow these steps for the firmware update process:

1. Unplug Mini-USB connector from device
2. Set the Dip Switch to **ON [↑]**
3. Connect the device to PC via USB to mini-USB cable
4. Click the FW Update button on software
5. Click “Load File” button to select the FW file
6. Click “Burn” button to start the FW update process
7. Unplug Mini-USB connector from device
8. Set the Dip Switch to **OFF [↓]**
9. Completed FW update process

7. I/O Port and Resolution Info

To display the information about the I/O Port and the applied Resolution

8. Button

To refresh the status of the converter

9. Output Quick Selection Button

Common functions for quick setting

Safety

The VGA to HDMI Translator, like all electronic equipment, should be used with care. To protect yourself from possible injury and to minimize the risk of damage to the Unit, read and follow these safety instructions.

- Follow all instructions and warnings marked on this Unit.
- Except where explained in this manual, do not attempt to service this Unit yourself.
- Do not use this Unit near water.
- Assure that the placement of this Unit is on a stable surface.
- Provide proper ventilation and air circulation.
- Keep connection cables clear of obstructions that might cause damage to them.
- Use only power cords, power adapter and connection cables designed for this Unit.
- Keep objects that might damage this Unit and liquids that may spill, clear from this Unit. Liquids and foreign objects might come in contact with voltage points that could create a risk of fire or electrical shock.
- Do not use liquid or aerosol cleaners to clean this Unit. Always unplug this Unit from the power source before cleaning.

Remove power from the unit and refer servicing to a qualified service center if any of the following conditions occur:

- The connection cables are damaged or frayed.
- The Unit has been exposed to any liquids.
- The Unit does not operate normally when all operating instructions have been followed.
- The Unit has been dropped or the case has been damaged.
- The Unit exhibits a distinct change in performance, indicating a need for service.

SERVICE AND MAINTENANCE

Maintenance and Repair

This Unit does not contain any internal user-serviceable parts. In the event a Unit needs repair or maintenance, you must first obtain a Return Authorization (RA) number from Rose Electronics or an authorized repair center. This Return Authorization number must appear on the outside of the shipping container.

See Limited Warranty for more information.

When returning a Unit, it should be double-packed in the original container or equivalent, insured and shipped to:

Rose Electronics

Attn: RA _____

10707 Stancliff Road

Houston, Texas 77099 USA

Technical Support

If you are experiencing problems, or need assistance installing your product, consult the appropriate section of this manual. If, however, you require additional information or assistance, please contact the Rose Electronics Technical Support Department at:

Phone: (281) 933-7673

E-mail: TechSupport@rose.com

Web: www.rose.com

Technical Support hours are from: 8:00 am to 6:00 pm CST (USA), Monday through Friday.

Please report any malfunctions in the operation of this Unit or any discrepancies in this manual to the Rose Electronics Technical Support Department.

APPENDICES

Appendix A – Specifications

Part Numbers	Description
CNV-VGAHDMISC	Translator, VGA to HDMI Converter/Scaler
CAB-HDMIMM006	HDMI M/M 6ft (2.0m) cable
CAB-HDMIMM010	HDMI M/M 10ft (3.0m) cable
CAB-CXVMF006	USB-AB 6ft (2.0m) cable
CAB-CXVMF010	USB-AB 10ft (3.0m) cable
CAB-SPMM006	Audio 3.5mm 6ft (2.0m) cable
CAB-SPMM010	Audio 3.5mm 10ft (3.0m) cable
Chassis Dimensions (W x D x H) and Weight	
Dimensions	3.6 × 3.3 × 1.1-inch, (92 × 83 × 28 mm)
Weight	0.9 lbs (0.25Kg)
Power Requirements	
Power Source	100-240VAC, AC input, 5V/2A, Max 5 Watts
Video	
Video resolutions supported	480i 576p 720p 640×480 800×600 1024×768 1280×720 1280×800 1280×1024 1600×1200 1680×1050 1920×1080
Video bandwidth	165MHz
Input TMDS signal	1.2 volts, peak-to-peak
Input DDC signal	1.5 volts, peak-to-peak, TTL
Audio	
	Stereo PCM (48KHz only)
Controls	
OSD	Push-button selection
IR Control	IR control pad
PC	OSD display via mini USB port
DIP switch	Normal operation or firmware update
Connectors	
Input	1 × VGA HD15 (female) 1 × 3.5mm stereo audio jack 1 × S/PDIF audio
Output	1 × HDMI (female)
LED's	
Signal	Green
Power	Red
Environmental	
Operating Temp	32°F to 104°F (0°C to 40°C)
Storage Temp	-4°F to 140°F (-20°C to 60°C)
Operating Humidity	20-90% relative, non-condensing
Approvals	FCC and CE certified, RoHS compliant, WEEE

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