# **Product Contents**

- One (1) VMS-741 MultiViewer
- One (1) Power Cable
- Two (2) Rack Mounting Brackets
- Fight (8) Mounting Screws
- One (1) Reference Guide

# Safety Suggestions

Read and Follow Instructions. Read all safety and operating instructions before operating the unit

Retain Instructions. Keep the safety and operating instructions for future reference. Heed Warnings. Adhere to all warnings on the unit and in the operating instructions Heat. Keep the unit away from heat sources such as radiators, heat registers, stoves, etc., including amplifiers that produce heat.

**Power Sources.** Connect the unit only to a power supply of the type described in the operating instructions, or as marked on the unit.

Power Cord Protection. Route power supply cords so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to the cord plugs at power receptacles and at the point at which they exit from the unit. Water and Moisture. Do not use the unit near water—for example, near a sink, in a wet basement, near a swimming pool, near an open window, etc.

Object and Liquid Entry. Do not allow objects to fall or liquids to be spilled into the enclosure through openings. Servicing. Do not attempt any service beyond that described in the operating instructions.

Refer all other service needs to qualified service personnel.

Damage Requiring Service. The unit should be serviced by qualified service personnel

- The power supply cord or the plug has been damaged
- Objects have fallen or liquid has been spilled into the unit. The unit has been exposed to rain.
- The unit does not appear to operate normally or exhibits a marked change in performance.
- The unit has been dropped or the enclosure has been damaged.

# Cleaning

To clean this product, lightly dampen a lint-free cloth with plain water or a mild detergent and wipe the outer surfaces.

NOTE: Do not use harsh chemicals as damage to the unit may occur.

# Federal Communications Commission Notice

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. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful 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 the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help This device complies with Part 15 of the FCC Rules. Operation is subject to the following

two conditions:

This device may not cause harmful interference

This device must accept any interference received including interference that may cause undesired operation

# **Industry Canada Compliance Statement**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

Cet appareil est conforme avec Industrie Canada exempts de licence standard RSS (s). Son fonctionnement est soumis aux deux conditions suivantes:

- Ce dispositif ne peut causer des interférences nuisibles.
- Cet appareil doit accepter toute interférence reçue y compris des interférences qui peuvent provoquer un fonctionnement indésirable



### DECLARATION OF CONFORMITY (DOC)

The Declaration of Conformity for this product can be found on the RTI website at: www.rticorp.com/declaration

# **Contacting RTI**

For news about the latest updates, new product information, and new accessories, please visit our web site at: www.rticorp.con

For general information, you can contact RTI at: Remote Technologies Incorporated 5775 12th Ave. E Suite 180 Shakopee, MN 55379 Tel. (952) 253-3100 Fax (952) 253-3131 info@rticorp.com

# Service & Support

If you are encountering any problems or have a question about your RTI product, please contact RTI Technical Support for assistance (see the Contacting RTI section of this guide for contact details).

RTI provides technical support by telephone or e-mail. For the highest quality service, please have the following information ready:

- Your Name
- Company Name
- Telephone Number
- E-mail Address
- Product model and serial number (if applicable)

If you are having a problem with hardware, please note the equipment in your system, a description of the problem, and any troubleshooting you have already tried \*Please do not return products to RTI without return authorization.\*

# **Limited Warranty**

RTI warrants new products for a period of three (3) years (excluding consumables such as rechargeable batteries which are warrantied for one (1) year) from the date of purchase by the original purchaser (end user) directly from RTI / Pro Control (herein referred to as "RTI"), or an authorized RTI dealer.

Warranty claims may be initiated by an authorized RTI dealer using the original dated sales receipt or other proof of warranty coverage. In the absence of the receipt of purchase from the original dealer, RTI will provide warranty coverage extension of six (6) months from the date code of the product. Note: RTI warranty is limited to the provisions set forth in this policy and does not preclude any other warranties offered by third parties who are solely responsible for those other warranties.

Except as specified below, this warranty covers defects in product material and workmanship. The following are not covered by the warranty:

- · Product purchased via unauthorized sellers or internet sites will not be servicedregardless of purchase date
- Damages caused by accident, misuse, abuse, neglect or acts of God.
- · Cosmetic damage, including, but not limited to, scratches, dents and normal wear and tear.
- Failure to follow instructions contained in the Product Installation Guide. • Damages due to products used in an application or environment other than that for which it was intended, improper installation procedures or adverse environmental
- factors such as incorrect line voltages, improper wiring, or insufficient ventilation. Repair or attempted repair by anyone other than RTI and Pro Control or authorized
- service partners. Failure to perform recommended periodic maintenance.
- Causes other than product defects, including lack of skill, competence or experience of user.
- Damage due to shipment of this product (claims must be made to the carrier).
- Altered unit or altered serial number: defaced, modified or removed.

RTI is also not liable for:

- Damages caused by its products or for failure of its products to perform, including any labor costs, lost profits, lost savings, incidental damages, or consequential damages.
- Damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation, commercial loss, any claim made by a third party or made on behalf of a third party.
- · Loss of, or damage to, data, computer systems or computer programs.

RTI's liability for any defective product is limited to repair or replacement of the product, at the sole discretion of RTI.

In cases where the warranty policy conflicts with local laws, the local laws will be adopted.

# **4K MultiViewer**

# **Reference Guide**



The VMS-741 4K MultiViewer is designed for meeting spaces, auditoriums, sports bars and other installations requiring a wide range of video sources with differing resolutions and formats. To meet the unique challenges of these environments, the unit combines AV switching with advanced scaling to display content from up to seven sources including HDMI, DisplayPort, VGA and an HDBaseT input. The powerful multiviewer function allows up to four video sources to be displayed simultaneously on one display, with user selectable window layout combinations. The innovative VMS-741 also offers audio embedding and de-embedded audio outputs.

# **Key Features**

The VMS-741 provides superior quality and reliability as well as these features: Multiviewer function allows up to 4 sources to be viewed simultaneously via 16 preset window layouts. Built-in 4K scaler with up-scaling and down-scaling support. Provides signal switching of up to 7 video sources (4 HDMI, 1 Display Port, 1 HDBaseT, 1 VGA).

- HDMI 1.4 and is HDCP 1.4 compliant.
- Supports multiple output resolutions up to 3840 x 2160 @ 30Hz.
- Audio embedding via analog stereo inputs.
- 8-channel (7.1) analog audio and TOSLINK optical audio outputs.
- Supports up to 16 different preset window layouts.
- Auto-scaling, auto-detect EDID.
- Control via front panel buttons, RS-232, Ethernet (from an RTI control system), or Web GUI.
- USB port for firmware updates.
- 1RU rack mountable.





VMS-741 4K MultiViewer

# **Installation & Operation**

FRONT PANEL DESCRIPTION



No.	Name	Function		
1	Video Input	Press to select the video input (buttons 1-7) for the video windows and audio output.		
2	Audio Source	To select the audio source, press the Audio Select button, then press the Video Input button (1-7) or the Video Window button (A-D). The currently selected audio source button will be lit solid and other buttons will flash. NOTE: If a Video Window button is selected, the audio source will be the video input assigned to that window.		
3	Video Window	Each Video Window button (A-D) represents one of the four possible video windows used in window layouts. T change the video source assigned to a window, select button A, B, C or D then press the video input (1-7).		
4	Window Layout	Press button to select from preset window layouts containing up to four video windows. NOTE: The default window layouts are shown below each button. The preset window layouts assigned to the buttons may be adjusted via the web interface (16 available layout options).		
5	Output Resolution	Press Select button to scroll through resolutions. Currently selected resolution will be lit.		
6	Power Indicator	Turns red when power on		



No.	Name	Function				
1	AC 110-240V	Connect AC power cable				
2	Power switch	Turn VMS-741 on or off				
3	Audio Output	4 - 3.5mm Stereo analog audio outputs (8 channel) - Connect to audio system. (see Audio Output Options)				
4	Optical Output	TOSLINK optical audio output - Connect to audio system.				
5	HDMI Output	HDMI port - Connect to HDMI display.				
6	Audio Input	7 - 3.5mm Stereo analog audio inputs - Connect to audio output of source device.				
7	HDMI Input	4 - HDMI Ports - Connect to HDMI source device.				
8	DisplayPort Input	DisplayPort - Connect to DisplayPort source device				
9	HDBaseT Input	RJ-45 Jack - Connect to HDBaseT Transmitter				
10	VGA Input VGA port - Connect to VGA source device					
11	FW	USB port for firmware update				
12	Ethernet	RJ-45 Jack - Connect to Ethernet network				
13	RS-232	Serial DB9 - Connect RS-232 control device				

# **CONNECTION DIAGRAM**



# INSTALLATION

Please visit the RTI dealer portal (www.rticorp.com/dealer) for additional instructions and specifications.

# RACK MOUNTING

- Remove Feet
- Install Rack Mount Brackets using supplied screws.
- 3. Mount in rack

# CONNECTIONS

- Connect HDMI/VGA/DP/HDBaseT source devices to input ports (as needed). 1.
- Connect a display device such as a TV or projector to the HDMI OUT port.
- Connect the audio source devices to the audio inputs (as needed). 3.
- Connect the analog audio outputs or TOSLINK optical audio output to an audio system such as a receiver or amplifier (See below for details). 4.
- Connect the serial output of a control system to the RS-232 port (as needed). 5.
- 6. Connect power cable to the VMS-741 and power the unit on. 7.
- AUDIO INPUT/OUTPUT

# "Auto" for the embedded HDMI/DP/HDBaseT audio, or "External" for the 3.5mm Stereo analog inputs. NOTE: If the analog audio outputs are used, the audio format for the selected input must be either analog stereo or uncompressed PCM audio with up to 8 channels (7.1).

The VMS-741 has three audio output types:

- Embedded, HDMI
- Digital Optical, TOSLINK
- 7.1 Channel Analog, 4 x 3.5mm Stereo (Pinout and audio format chart below)



# **RS-232 CONTROL**

- An RTI control system driver is available for the VMS-741 via the rticorp.com driver store. Follow the instructions that come packaged with the driver.
- Connect to the VMS-741 to a control system using a straight-through serial cable with a DB9 connector.
- Default: baud rate: 9600; data bits: 8; stop bits: 1; parity: none

# ETHERNET/IP CONTROL

- An RTI control system driver is available for the VMS-741 via the rticorp.com driver store. Follow the instructions that come packaged with the driver.
- termination and power the unit on. The network router will assign an IP address to the unit automatically and allow it to join the network.

# WEB INTERFACE

The VMS-741 web interface is used for configuring settings (see below). To access the web interface, first determine the IP address that was assigned to the VMS-741 (see above) and enter it into the search bar of a standard web browser (ex 10.10.0.100).

# Web Interface Settings:

- General: Video input and window layout selection, Audio configuration, Button Configuration. Advanced: Audio settings, RS-232 Baudrate, Audio and video OSD, Analog settings. •

- EDID: EDID Copy (Ports 1-7), EDID Upload and Download Network: DHCP, IP settings, Socket settings, Reset network settings to factory default.

Features and specifications subject to change without notice.

Connect the ETHERNET port to Ethernet network for access to web interface and IP control via a two-way driver (available via rticorp.com/dealer).

To select between the HDMI/DP/HDBaseT audio inputs or the analog inputs, access the web interface General tab (instructions below) and set the Audio Input Configuration to

AUDIO OUTPUT CHANNEL									
	3	4	5	6	7	8			
	_	—	_	_	_	_			
	LFE	—	-		_	-			
	LFE	FC	RL	RR	—	—			
	LFE	FC	RL	RR	RLC	RRC			

The VMS-741 is set to use DHCP by default and the network router must have DHCP enabled. Wire the VMS-741 to the Ethernet network using Cat cable with the RJ-45 The IP address will be shown on the video display when the VMS-741 is powered on and when a video input is selected that does not have a source connected to it.