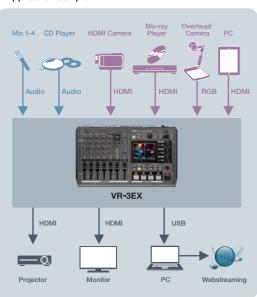
#### ■ Specifications

Video Processing	4:2:2 (Y/Pb/Pr), 8 bits (Internal Processing : 480/59.94p when set to NTSC, 576/50p when set to PAL)  Sampling Rate : 24 bits/48 kHz			Video	VIDEO OUT (HDMI: Type A 19 pins) VIDEO OUT (RGB/omponent: HD DB-15 type) VIDEO OUT (Composite: RCA phono type) PVW OUT (HDMI: Type A 19 pins)
Audio Processing					
Input Formats	HDMI Video (VIDEO IN 1-3)	480/59.94p (when set to NTSC) 576/50p (when set to PAL)	Output Connectors		AUDIO OUT L.R (Stereo RCA phono type) AUX OUT L.R (Stereo 1/4-inch phone type)
	HDMI Video (VIDEO IN 4)	480/59.94i, 480/59.94p, 720/59.94p, 1080/59.94i, 1080/59.94p (when set to NTSC) 576/50. 576/50. 720/50b. 1080/50i. 1080/50o (when set to PAL)		Audio	PHONES (1/4-inch phone type) (headphones) PHONES (Stereo miniature type) (headphones)
	HDMI Audio (VIDEO IN 1-4) Linear PCM, 24 bits/48 kHz, 2 ch		Other Connectors	MIDI : 5 pins DIN type x 2 (IN, OUT/THRIU) USB : B type x 1 (for streaming and remote control)	
	RGB/Component (VIDEO IN 4)	640 x 480/60Hz, 800 x 600/60Hz, 1024 x 768/60Hz, 1280 x 768/60Hz, 1280 x 1024/60Hz, 1366 x 768/60Hz, 1400 x 1050/60Hz, 1600 x 1200/60Hz, 1920 x 1200/60Hz 2 100/60Hz, 1920 x 1200/60Hz 2 100/60Hz 1 100/60Hz, 1920 x 1200/60Hz 2 100/60Hz, 1600 x 100/60Hz, 1600/60Hz, 1	Signal Level and Impedance	RGB/Component	Input/Output Signal Level : 1.0 Vp-p (luminance) 0.7 Vp-p (chroma) Input/Output Impedance : 75 ohms
				Composite	Input/Output Signal Level : 1.0 Vp-p Input/Output Impedance : 75 ohms
	Composite Video (VIDEO IN 1-4)	NTSC, PAL		XLR/TRS combo type	Input Signal Level : -60-+4 dBu (Maximum: +22 dBu) Input Impedance : 10 k ohms (GAIN 0-23 dB) 5 k ohms (GAIN 24-64 dB)
Output Formats	HDMI and RGB/ Component Video (VIDEO OUT)	480/59.94i, 576/50i, 480/59.94p, 576/50p, 720/59.94p, 720/50p, 1080/59.94i, 1080/50i, 1080/59.94j, 1080/50p 640 ×480, 800 × 600, 1024 ×768, 1280 × 768, 1280 × 1024, 1366 × 768, 1400 × 1050, 1600 × 1200, 1920 × 1200 × 768, 1280 × 1024, 1366 × 768, 1400 × 1050, 1600 × 1200, 1920 × 1200 mponent is always the same. When an interfaced format is selected, component signal is output from the RGB/COMPONENT connector. When a non-interfaced format is selected, RGB signal is output from the RGB/COMPONENT connector. *The refresh rates of RGB format is 60 Hz when set to NTSC, 75 Hz when set to PAL (excluding 1600 × 1200 and 1920 × 1200. The refresh rate of these 2 is 75 Hz when set to PAL.) **RGB formats*: Conforms to VESA DMT Version 1.0 Revision 11. **1920 × 1200/60Hz : Reduced blanking		1/4-inch/RCA phono type	Input Signal Level : -10 dBu (Maximum: +8 dBu) Input Impedance : 15 k ohms Output Signal Level : -10 dBu (Maximum: +8 dBu) Output Signal Level : -10 dBu (Maximum: +8 dBu)
				Miniature type	Input Signal Level : -15 dBu (Maximum: +3 dBu) Input Impedance : 15 k ohms
				Headphones	Output Signal Level: 25 mW + 25 mW Output Impedance : 10 ohms
			Display	Graphic Color LCD, 320 x 240 dots, touch panel	
				Transition : Out, Mix (3 patterns), Wipe (250 patterns) VIDEO FX : Strobe, Negative, Colorize, Findedge, Silhouette, Monochrome, Sepia, Emboss, Posterize, Color pass, Mittl (11 byes) Composition : Picture in Picture, Spili, Quad, Luminance Key, Chroma Key Others : Output Fade, Freeze	
	HDMI Audio (VIDEO OUT)	Linear PCM, 24 bits/48 kHz, 2 ch	Video Effects		
	Composite Video (VIDEO OUT)	NTSC, PAL	Power Supply	AC Adaptor	
	Preview Video	480/59.94p when set to NTSC, 576/50p when set to PAL	Current Draw	2.3 A	
	(PVW OUT) Preview Audio	Linear PCM, 24 bits/48 kHz, 2 ch	Dimensions 345 (W) x 203 (D) x 13-5/8 (W) x 8 (D) x		
	(PVW OUT)	720 x 480 when set to NTSC.	Weight excl. AC adaptor	2.3 kg 5 lbs 2 oz	
	USB Video	720 x 576 when set to PAL, Motion JPEG	Accessories	AC Adaptor, Power Cord, Owner's Manual	
	USB Audio	Linear PCM, 16 bits/48 kHz, 2 ch	*0 dBu = 0.775 V ms		
	Video	VIDEO IN 1-4 (HDMI : Type A 19 pins) VIDEO IN 4 (RGB/Component : HD DB-15 type)	* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.		

#### ■ Application sample

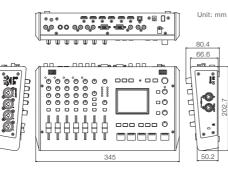


#### Front Panel





#### Dimensions



Roland Systems Group, a member of the worldwide group of Roland companies, is dedicated to the support of audio and video professionals demanding excellence in both performance and system design. Through the development and support of video and audio products, we endeavor to improve workflow and maximize creative possibilities.



MIDI Visual Control is an internationally-used recommended practice that was added to the MIDI specification so that visual expression could be linked with musical performance. Video equipment that is compatible with MIDI Visual Control can be connected to electronic musical instruments via MIDI in order to control video equipment in tandem with a performance.



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### Roland

# **AV MIXER** VR-3EX











# Every function an event venue or live stream demands - all in one single unit.

From speeches, seminars, and symposiums to live events and performances, the VR-3EX simplifies setup and production for every application that requires video and sound.





## VR-3EX AV MIXER

## Simplicity for all applications that need video and sound

The VR-3EX features a simple interface that places the audio mixer on the left and the video mixer on the right for a design that helps ensure intuitive control of the audiovisual experience.

The buttons and knobs let the operator easily accomplish all the common tasks while the touch-screen monitor displays more-advanced settings and adjustments in a visual layout that's clear and easy to understand.

The VR-3EX is expressly designed for real-time operations. It makes video switching and audio mixing accessible by users with no specialized knowledge.









## An all-in-one design for live production

At event and studio venues, video equipment can include cameras, DVD players, computers, tablets, and more along with audio sources extending to microphones and audio players of every type.

The VR-3EX's variety of connectors for HDMI, RGB, and audio sources enable connection of a wide range of video and audio devices. The design enables the user to concentrate on the event at hand without having to worry about controlling multiple devices at the same time.



### Webstreaming or recording with a PC/Mac

Connecting the VR-3EX to a computer via USB enables it to record video and audio using the dedicated Video Capture for VR recording software or QuickTime. The recorded files can then be edited and/or uploaded to the net. Live streaming software examples include USTREAM, Livestream, Stickam, Justin.tv, worshipstream.com, websharelive.com, and other streaming services along with video conferencing type solutions such as Skype and gotomeeting.



An all-in-one solution for any application made possible by a wealth of features and a full range of practical digital-processing power.

Despite its compact size, the VR-3EX delivers full digital processing for video and audio, supporting on-site operations with clear picture and sound. It offers built-in digital effects for both video and audio, bringing new levels of audiovisual expression to any venue and streaming broadcast.

### **AUDIO MIXER**

The VR-3EX features an 18-channel digital audio mixer with built in effects for a wide variety of situations.

#### Intuitive Panel Layout

Gain, EQ (LO/MID/HI) controls and faders permit intuitive control of channel levels. Pressing the SETUP button for a channel enables more in-depth tuning via the touch screen display.



#### Rich Selection of Audio Effects

Built-in Equalizers, High-pass Filter, Gate, Compressor, Delay, and Reverb effects can be applied to each audio input channel, enabling a rich mix of sound with powerful impact.\*

\* CH 5/6, 7/8 and HDMI 1-4 have Equalizers, Delay, and Reverb only.



#### **HDMI** Audio Support

The VR-3EX can use the embedded audio from video cameras and other devices connected using HDML This makes it possible to work with clear, digital HDMI audio in just the same way as analog audio.





#### Internal Stereo Microphones

Built-in stereo microphones are located at the top of the case. These let the operator record commentary in his or her own voice or add in spectator cheers and applause to boost ambience



#### Two Audio Mix Systems (Main & AUX)

Audio can be mixed and output separately from the main audio. This makes it possible to use the VR-3EX for recording and as a PA system at the same time.







#### Operating and Backing-up by remote software

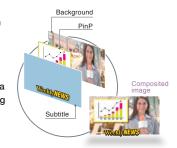
You can use the VR-3EX RCS dedicated software to operate and back-up the settings by remote control from a computer connected via USB.



Free download from www.rolandsystemsgroup.net

#### Composition of Text, People, and More

Produce picture-in-picture, lower 3rd or subtitle compositing using a single key button. The VR-3EX is capable of chroma and luminance key composition, enabling video with inserted characters against composited backgrounds.



#### Recording using Windows/Mac

Video Capture for VR is application software that captures video and audio signals output from the VR-3FX USB port and saves them to movie files on a connected Windows/Mac.

Free download from www.rolandsystemsgroup.net

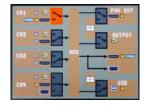


### VIDEO MIXER

The video processing engine in the VR-3EX is fully digital and progressive, even when using effect-heavy processing.

#### Four Video Sources from Nine **Input Connectors**

The VR-3EX accepts HDMI, RGB component, and composite input over up to nine connectors and seamlessly switches between any four of them. Inputs and outputs are intuitively switchable using the touch-screen or pushbuttons.



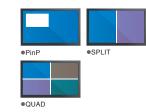
#### Intuitive Touch-screen Monitor

The touch-screen monitor lets the operator switch video and make settings via the on-screen touch display switchable to four-way split input, a single out screen, or simultaneous five-way input and output. Output car also be sent to an external HDMI monitor via the PVW OUT connector.



#### Simple Inset-screen and Split-screen Display

Various multi-screen display modes can be controlled with a button in the form of PinP using an inset screen positioned as wanted, horizontal or vertical split screen, or four-way split



#### ■ Video Transition Times

A Transition dial lets the operator adjust the time for screen dissolves and wipes to any interval up to four seconds. This makes it easy to achieve slow video transitions that create greater emotional impact.



#### **■** Diverse Array of Video Effects

The VR-3EX comes with a range of effects for transforming video to match the application. With just the twist of a control, even ordinary camera footage can receive dramatic flair that makes it pop.





VIDEO FX list Strobe, Negative, Colorize, Findedge, Silhouette Monochrome, Sepia, Emboss, Posterize, Color pass,