

STREAMING VIDEO SWITCHER
V-160HD



Main Specifications

Video																																																																																					
Video Processing	4:2:2 (Y/Pb/Pr), 8-bit																																																																																				
Input Connectors	HDMI IN 1-4 HDMI type A x 4 * HDCP supported																																																																																				
	HDMI IN 5-8 HDMI type A x 4 * HDCP and multi-format supported																																																																																				
	SDI IN 1-8 BNC type x 8 * Conforms to SMPTE 424M (SMPTE 425M-AB), 292M																																																																																				
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	<p>Still Image</p> <p>Bitmap file (.bmp): Maximum 1920 x 1080 pixels, 24-bit color, uncompressed PNG file (.png): Maximum 1920 x 1080 pixels, 24-bit color JPG File (.jpg): Maximum 1920 x 1080 pixels, 24-bit color</p> <p>* It can be stored up to 16 files in the internal memory. * It can be exported in the USB flash drive. * PNG alpha channel supported.</p>																																																																																				

Output formats	HDMI OUT 1–2 SDI OUT 1–3	SYSTEM FORMAT setting	FRAME RATE setting		
			59.94 Hz	60 Hz	50 Hz
		720p	720/59.94p	720/60p	720/50p
		1080i	1080/59.94i	1080/60i	1080/50i
		1080p	1080/59.94p	1080/60p	1080/50p
	HDMI OUT 3	FRAME RATE setting			
		59.94 Hz	60 Hz	50 Hz	
		1080/59.94p	1080/60p	1080/50p	
	USB STREAM	FRAME RATE (USB OUT) setting			
		59.94 Hz	29.97 Hz	50 Hz	25 Hz
1080/59.94p		1080/29.97p	1080/50p	1080/25p	
720/59.94p		720/29.97p	720/50p	720/25p	
640 x 480/59.94p		640 x 480/29.97p	640 x 480/50p	640 x 480/25p	
	* Uncompressed format (YUV2) and Compressed format (Motion JPEG) supported.				
Video Effects	Transition	CUT, MIX (DISSOLVE/FAM/NAM), WIPE (8 types), SPLIT (2 types)			
	Composition	PinP x 4 (SQUARE, CIRCLE, DIAMOND), Keyer x 4 (Luminance Key, Chroma Key) DSK x 2 (Luminance Key, Chroma Key, Alpha Key, External Key)			
	Other	Flip horizontal, Flip vertical, Still Image Capture, Still Image Playback Output fade (Audio, Video: WHITE or BLACK), Test pattern output			
■ Audio					
Audio Processing	Sample rate	24 bits/48 kHz			
Audio formats	USB STREAM (input/output)	Linear PCM, 24 bits/48 kHz, 2 ch			
	Bluetooth (input)	Linear PCM, 24 bits/48 kHz, 2 ch			
	HDMI IN	Linear PCM, 24 bits/48 kHz, 2 ch			
	HDMI OUT	Linear PCM, 24 bits/48 kHz, 8 ch			
	SDI IN	Linear PCM, 24 bits/48 kHz, 2 ch (Conforms to SMPTE 299M)			
	SDI OUT	Linear PCM, 24 bits/48 kHz, 8 ch (Conforms to SMPTE 299M)			
Input Connectors	Analog	AUDIO IN 1–2	Combo type (XLR, 1/4-inch TRS phone), phantom power DC 48 V (unloaded maximum), 14 mA (maximum load)		
		AUDIO IN 3/L, 4/R	RCA phono type		
	Digital	USB STREAM	USB Type-C		
		Bluetooth			
		HDMI IN 1–8	HDMI type A x 8		
	SDI IN 1–8	BNC type x 8			
Output Connectors	Analog	AUDIO OUT	XLR type		
		AUDIO OUT	RCA phono type		
		PHONES	Stereo 1/4-inch phone type		
	Digital	USB STREAM	USB Type-C		
		HDMI OUT 1–3	HDMI type A x 3		
	SDI OUT 1–3	BNC type x 3			
Input Level	AUDIO IN 1, 2	-60– +4 dBu (Maximum: +24 dBu)			
	AUDIO IN 3/L, 4/R	-10 dBu (Maximum: +10 dBu)			
Input Impedance	AUDIO IN 1, 2	9.4 kΩ (ANALOG GAIN 0 < 24 dBu), 74.4 kΩ (ANALOG GAIN ≥ 24 dBu)			
	AUDIO IN 3/L, 4/R	47 kΩ			
Output Level	AUDIO OUT (XLR)	+4 dBu (Maximum: +24 dBu)			
	AUDIO OUT (RCA)	-10 dBu (Maximum: +10 dBu)			
	PHONES	92 mW + 92 mW (32 Ω)			
Output Impedance	AUDIO OUT (XLR)	600 Ω			
	AUDIO OUT (RCA)	1 kΩ			
	PHONES	10 Ω			
Audio Effects	Auto Mixing, Delay, Reverb, High pass filter, Echo canceller, Anti-feedback, Noise gate, De-esser, Compressor, Equalizer Voice changer, Multi-band compressor, Limiter, Test tone output				

Appendix

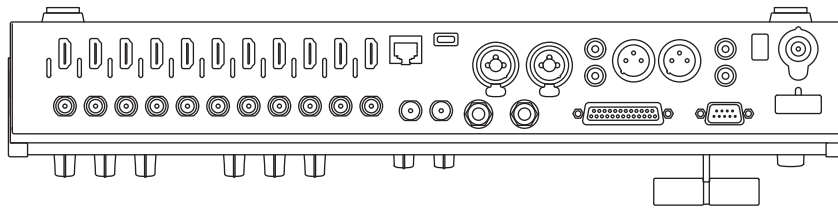
Others		
Other Connectors	USB MEMORY	USB A type (for USB flash drive)
	USB	USB B type (for remote control)
	RS-232	DB-9 type (male, for remote control)
	TALLY	DB-9 type (female, for TALLY output)
Other Functions	Preset Memory (30 types), Macro Control (100 types), Sequencer Control, Panel lock function, EDID Emulator, Auto Switching Auto Input Detect, Smart Tally, Remote Camera Control, Rec Control	
Bluetooth	Ver 4.2	
	Profile Support	A2DP (Audio), GATT (MIDI over Bluetooth Low Energy)
	Codec	SBC (Support to the content protection of the SCMS-T method)
Display	4.3 inches TFT Color LCD: 480 x 272 dots	
Power Supply	AC Adaptor	
Current Draw	2.5 A	
Power Consumption	55 W	
Operation Temperature	+0 to +40 degrees Celsius +32 to +104 degrees Fahrenheit	
Dimensions	437 (W) x 253 (D) x 103 (H) mm	
	17-1/4 (W) x 10 (D) x 4-1/16 (H) inches	
	480 (W) x 253 (D) x 103 (H) mm	
	18-15/16 (W) x 10 (D) x 4-1/16 (H) inches	
* When rack-mount angles are fitted.		
Weight (excluding AC adaptor)	3.9 kg	
	8 lbs 10 oz	

* 0 dBu = 0.775 Vrms

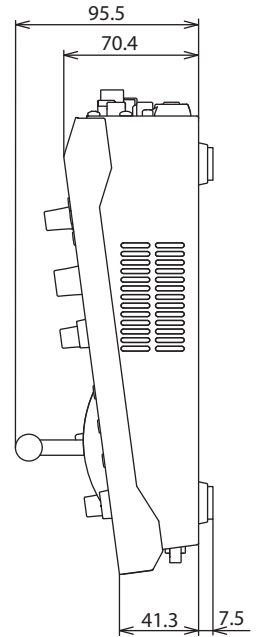
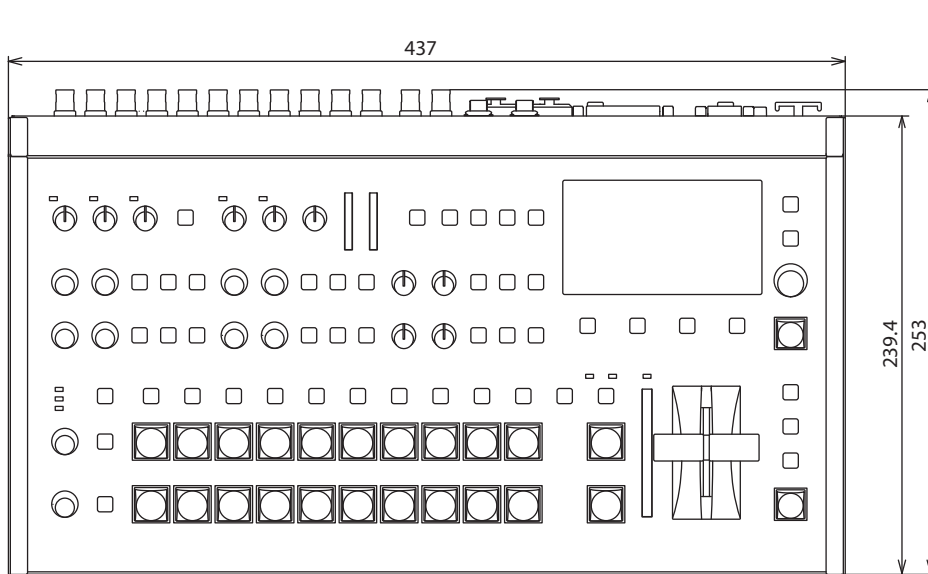
* This product is a Class A digital device under FCC part 15.

* This document explains the specifications of the product at the time that the document was issued. For the latest information, refer to the Roland website.

Dimensions



Unit: mm



When rack-mount angles are attached

