

Video Inputs/Outputs/Reference

Notes:

- The number of available input and output BNCs depends on the frame you ordered.
- The MultiViewer is assigned to output BNC 1 and 2.
- The 3 additional MultiViewers on the x36+ and 12G frame are fixed to outputs MV3-5.
- Only Media-Store audio can be output on the AES audio outputs. Audio is not embedded in the MultiViewer output.
- *Output BNCs 11-22 (Outputs 3-5) on the x36+ and 12G frames have dedicated format converters and color correctors for each output.

Power Switch, USB Port, and Diagnostics

AES Audio and LTC Ports

Frame Ports and Pinouts

Note: The Panel port is used to connect to the Carbonite control panels.

Serial (female RJ-45)	
Pin	RS-422
1	Tx+
2	Tx-
3	Rx+
4	n/c
5	n/c
6	Rx-
7	Ground
8	Ground

GPI I/O (female DB37)	
Pin	Signal
1	GPI I/O 1
2	GPI I/O 2
3	GPI I/O 3
4	GPI I/O 4
5	GPI I/O 5
6	GPI I/O 6
7	GPI I/O 7
8	GPI I/O 8
9	GPI I/O 9
10	GPI I/O 10
11	GPI I/O 11
12	GPI I/O 12
13	GPI I/O 13
14	GPI I/O 14
15	GPI I/O 15
16	GPI I/O 16
17	GPI I/O 17
18	GPI I/O 18
19	GPI I/O 19
20	GPI I/O 20
21	GPI I/O 21
22	GPI I/O 22
23	GPI I/O 23
24	GPI I/O 24
25	Ground
26	GPI I/O 25
27	GPI I/O 26
28	GPI I/O 27
29	GPI I/O 28
30	GPI I/O 29
31	Ground
32	GPI I/O 30
33	GPI I/O 31
34	GPI I/O 32
35	GPI I/O 33
36	GPI I/O 34
37	--

Tally (female DB37)	
Pin	Tally
1	Common (2-6, 20-25)
2	Tally 1
3	Tally 2
4	Tally 3
5	Tally 4
6	Tally 5
7	Tally 6
8	Tally 7
9	Tally 8
10	Tally 9
11	Tally 10
12	Tally 11
13	Tally 12
14	Tally 13
15	Tally 14
16	Tally 15
17	Tally 16
18	Tally 17
19	Common (13-18, 32-37)
20	Tally 18
21	Tally 19
22	Tally 20
23	Tally 21
24	Tally 22
25	Tally 23
26	Tally 24
27	Tally 25
28	Tally 26
29	Tally 27
30	Tally 28
31	Common (7-12, 26-30)
32	Tally 29
33	Tally 30
34	Tally 31
35	Tally 32
36	Tally 33
37	Tally 34

Note: The tally pin must be connected to the proper common to complete the circuit. For example, tally 6 on pin 7 must be connected to the common on pin 31.

Specifications

Video Formats
UHDTV1 2SI
UHDTV1 Quad
2160p 59.94Hz
2160p 50Hz

Default Values	
Frame IP (LAN1)	192.168.0.123
Frame IP (LAN2)	0.0.0.0
FTP User name	user
FTP Password	password
Tally Rating	
Input Voltage:	24VAC (rms) / 40VDC
Maximum Current:	120mA
Impedance:	< 15 ohms
Temperature	
Operating:	0 - 40°C (32 - 104°F)
Storage:	-20 - 85°C (-4 - 185°F)

Power Consumption	
CB9	24W 2.0A 12V
CB1	25W 2.1A 12V
CB1S	30W 2.5A 12V
CB2	35W 2.9A 12V
CB2S	45W 3.8A 12V
CB3S	65W 5.4A 12V
CB3X	80W 6.7A 12V
x36 Frame	120W 2.5A 48V
x36+ Frame	180W 3.75A 48V
x36+12G Frm	206W 4.3A 48V

Input Voltages	
Panel/Frame	100 - 120V~
	220 - 240V~
	47-63Hz

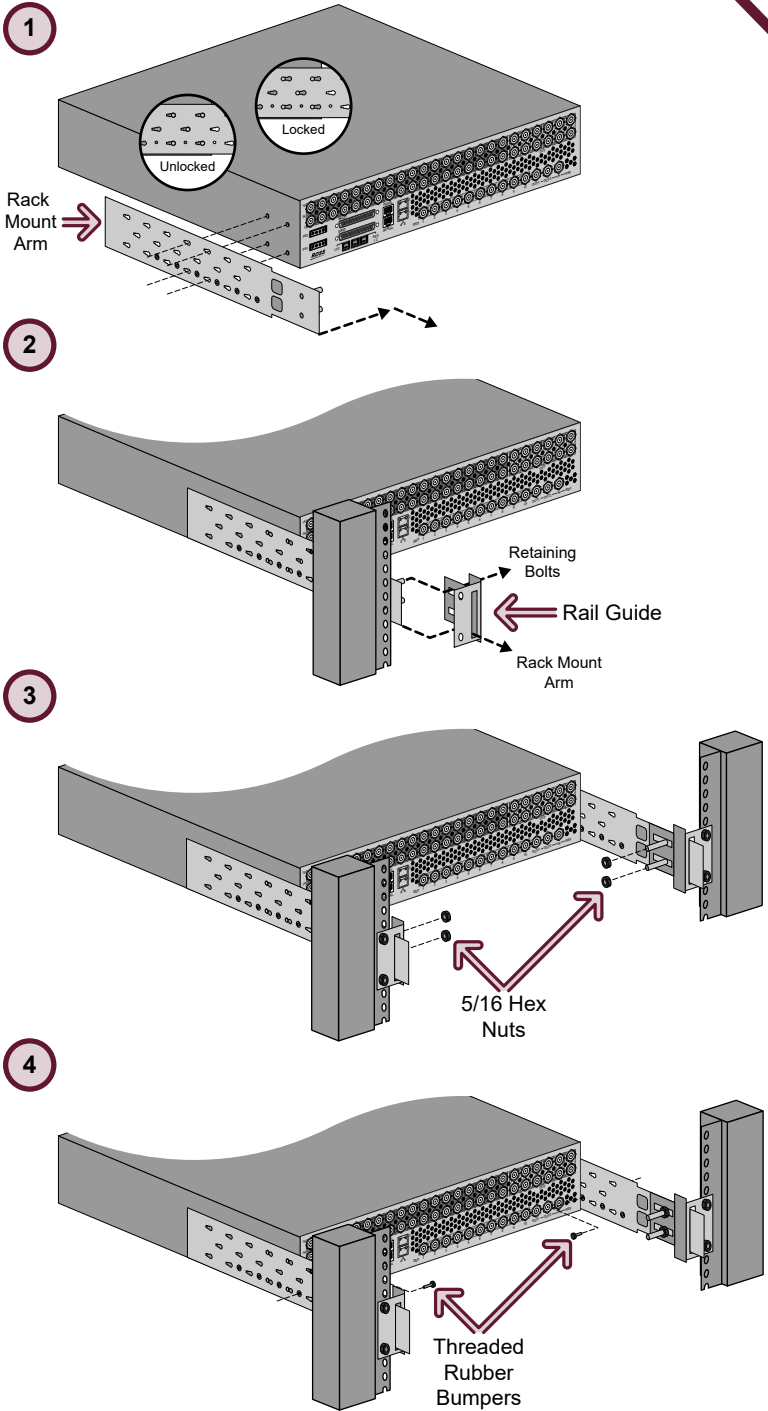
Video Input Specifications	
Equalization	>50m at 12Gb/s
(using Belden 1694A cable)	>50m at 3Gb/s
	>100m at 1.5 Gb/s
	>300m at 270 Mb/s (5°-40°C)
Impedance	75 ohm, terminating
Video Inputs, SDI	SMPTE 259M/292M/424M/ST2082
	serial digital (non-looping)
Reference Inputs	Standard Definition — analog black
(non-terminating, looping)	High Definition — tri-level sync

Video Output Specifications	
Return Loss	<-8dB at 12GHz
	<-9dB at 6GHz
	<-10dB at 3GHz
	<-15dB at 1.5GHz
Rise and Fall Time	30ps +/- 10% (UHDTV1)
	240ps +/- 10% (HD)
	800ps +/- 10% (SD)
Signal Level	800mV +/- 10%
Jitter at 12Gb/s	Alignment (100KHz filter) <0.18UI
	Sync Timing (10Hz filter) <3.5UI
DC Offset	0 Volts
Overshoot	< 10%
HD Mode	10-bit SMPTE-292M serial digital

AES Output Specifications	
Audio Depth	24-bit in HD
	20-bit in SD
Channels	1 Stereo Pair
File Format	Multi-Channel Waveform
	Audio File
Impedance	110 Ohms, differential
Min/Max Output Voltage	1.5/6V peak-to-peak
Swing	
Rise and Fall Times	20ns (typical)
Sample Rate	48kHz
Synchronization	Locked to Video

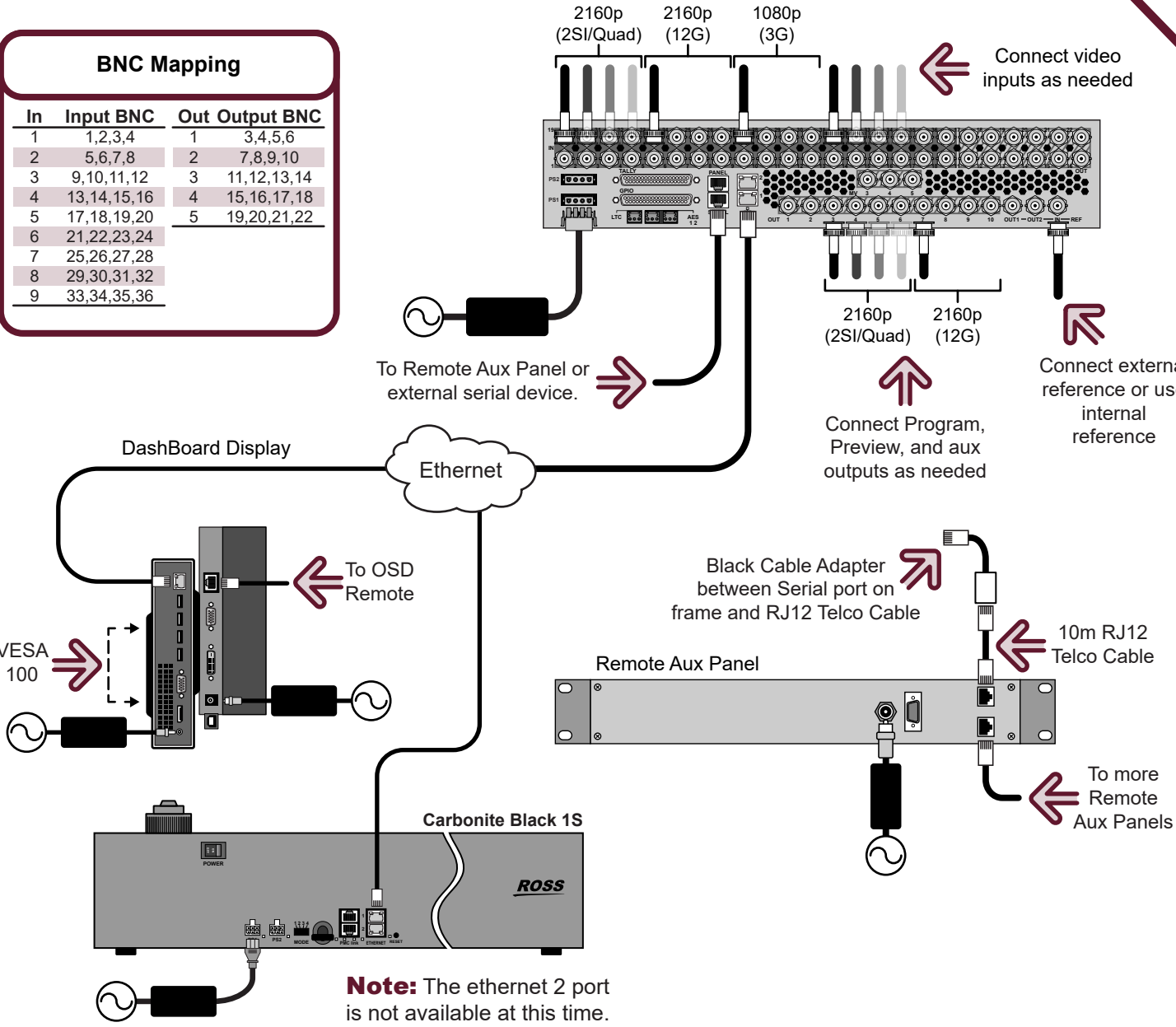


Rack Mounting

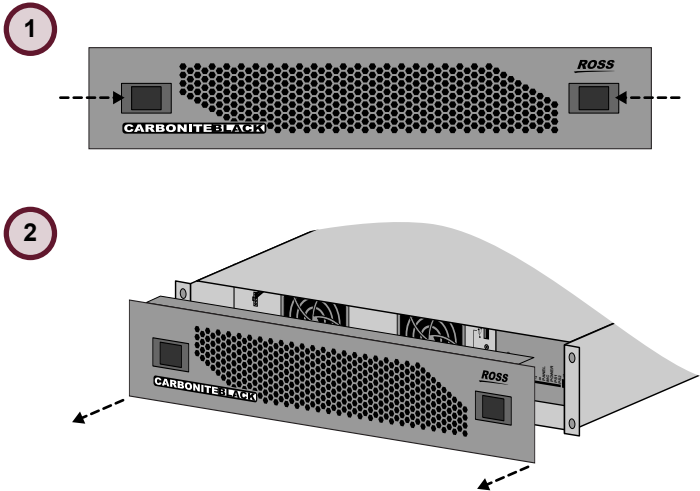


Power and Control Cabling

BNC Mapping			
In	Input BNC	Out	Output BNC
1	1,2,3,4	1	3,4,5,6
2	5,6,7,8	2	7,8,9,10
3	9,10,11,12	3	11,12,13,14
4	13,14,15,16	4	15,16,17,18
5	17,18,19,20	5	19,20,21,22
6	21,22,23,24		
7	25,26,27,28		
8	29,30,31,32		
9	33,34,35,36		

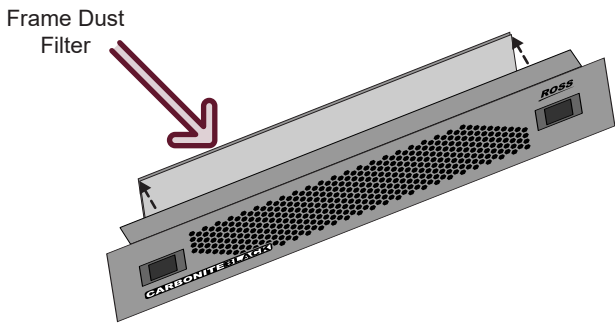


Frame Door Opening



Frame Dust Filter

Remove frame door before cleaning the dust filter.



Note: The Dust Filter located inside the frame door should be kept clean and free of dust buildup to ensure proper cooling of the frame. Always ensure that the Dust Filter is covering all the holes in the door.

Having a problem? Call our free, 24-hour technical support hotline to speak with a live product specialist located right here in our facility.

Tel: (+1) 613 • 652 • 4886
Email: techsupport@rossvideo.com

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