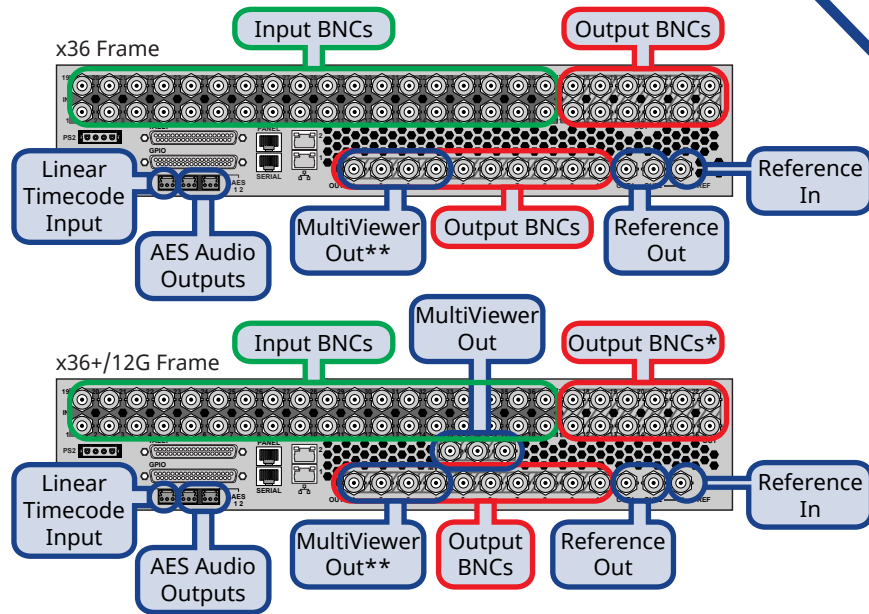


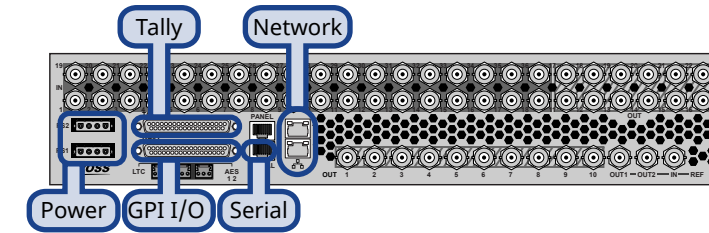
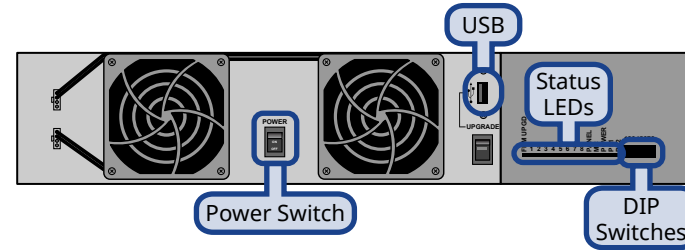
## Video Inputs/Outputs/Reference



### Notes:

- The number of available input and output BNCs depends on the frame you ordered.
- \*\* The 2 base MultiViewers in SD/HD are assigned to outputs 1 and 2, but can be re-assigned to outputs 3 and 4, respectively.
- \*\*The 1 base MultiViewer in UHD is assigned to outputs 1 and 2.
- The 3 additional MultiViewers on the x36+/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 on the x36+/12G frames have dedicated format converters and color correctors for each BNC.

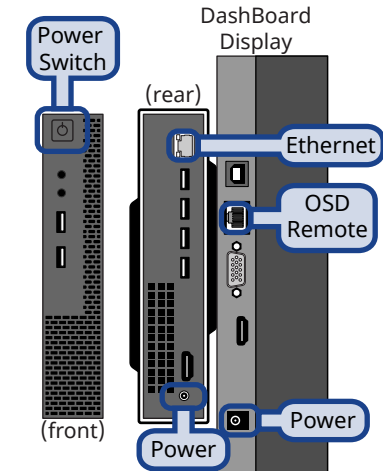
## Ports, Pinouts, and Diagnostics



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

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

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



**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

3G Video Formats	
480i/720p/1080i/1080p(A)	59.94Hz
576i/720p/1080i/1080p(A)	50Hz
1080pSF 23.98Hz	
1080pSF 25Hz	
1080pSF/1080p	29.97Hz

12G 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)

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

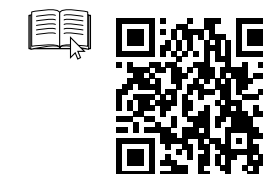
  

Power Consumption	
x36 Frame	120W 2.5A 48V
x36+ Frame	180W 3.75A 48V
x36+12G Frm	206W 4.3A 48V

Video Input Specifications	
Equalization (using Belden 1694 cable)	>50m at 12Gb/s (12G only) >50m at 3Gb/s (12G only) >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 (non-terminating, looping)	Standard Definition — analog black High Definition — tri-level sync

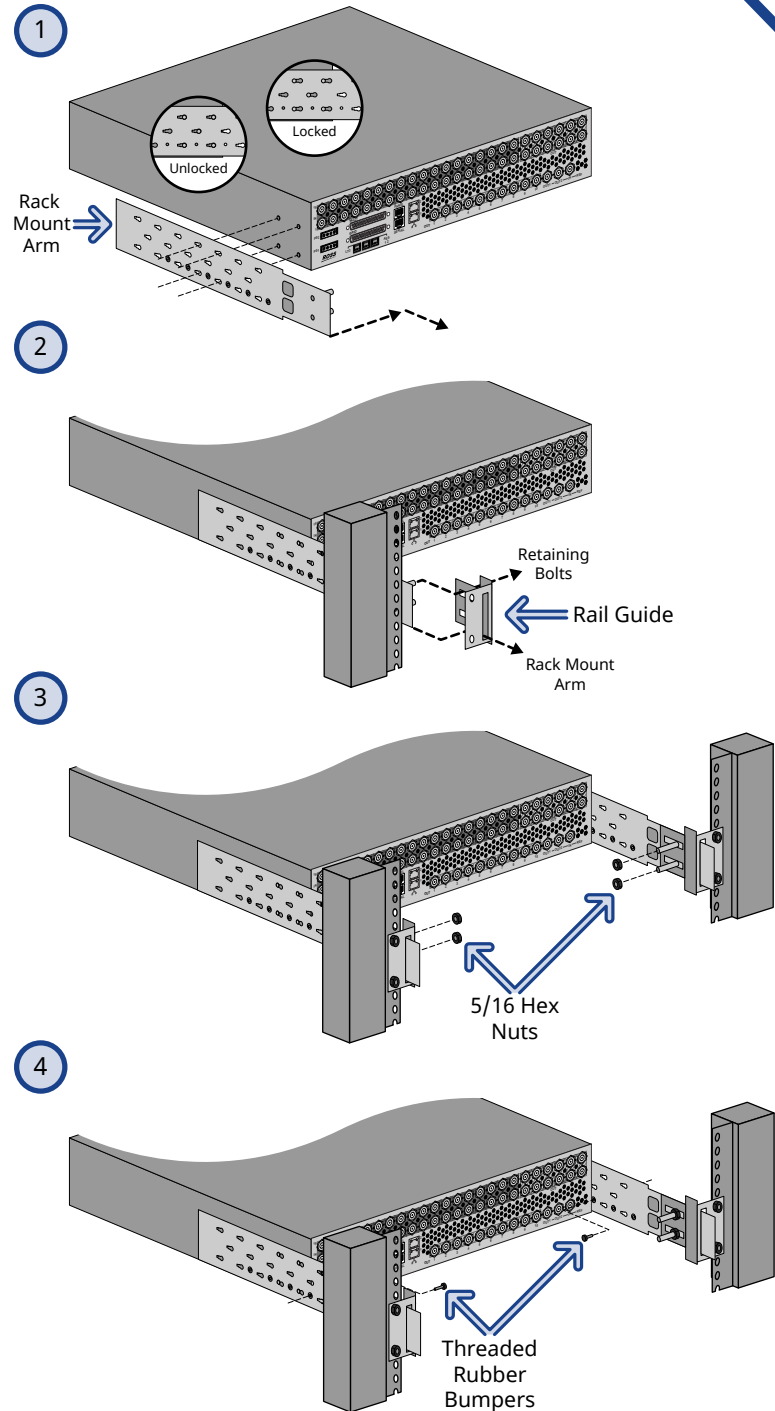
Video Output Specifications	
Return Loss	<-8dB at 12GHz (12G only) <-9dB at 6GHz (12G only) <-10dB at 3GHz <-15dB at 1.5GHz
Rise and Fall Time	30ps +/- 10% (UHD) 240ps +/- 10% (HD) 800ps +/- 10% (SD)
Signal Level	800mV +/- 10%
Jitter at 12Gb/s	Alignment (100KHz filter) <0.18UI Sync Timing (10Hz filter) <3.4UI
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 Swing	1.5/6V peak-to-peak
Rise and Fall Times	20ns (typical)
Sample Rate	48kHz
Synchronization	Locked to Video

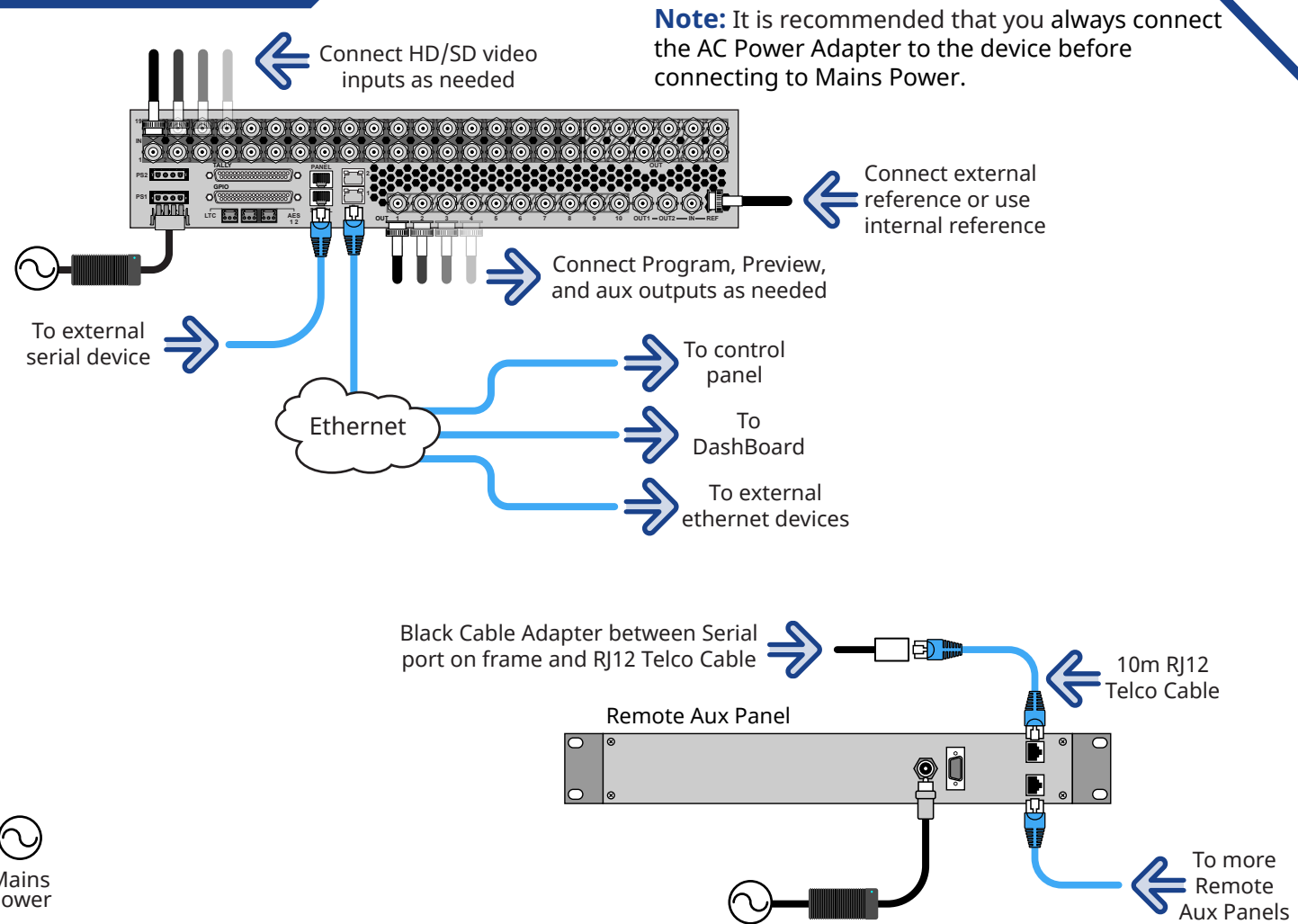


**Caution:** Before you set up and operate your switcher, see the "Important Safety Instructions" in your Setup manual.

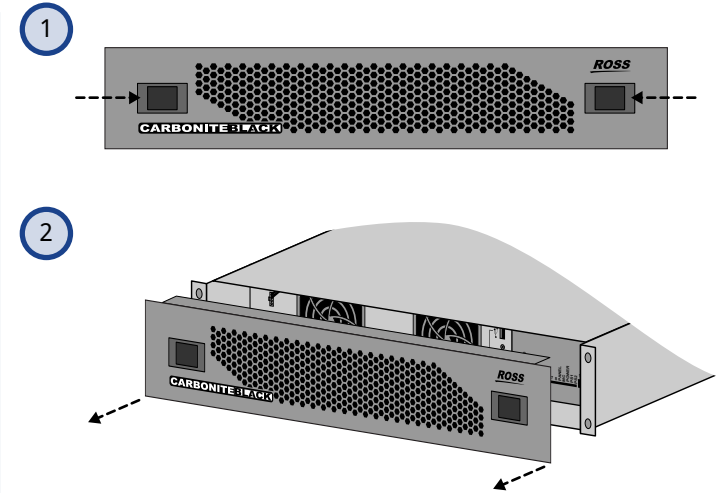
## Rack Mounting



## Power and Control Cabling

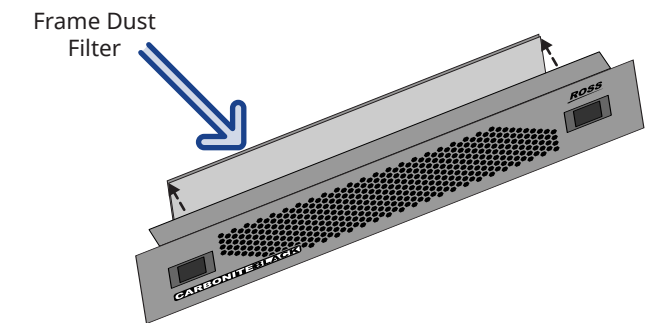


## Frame Door Opening



## Frame Dust Filter

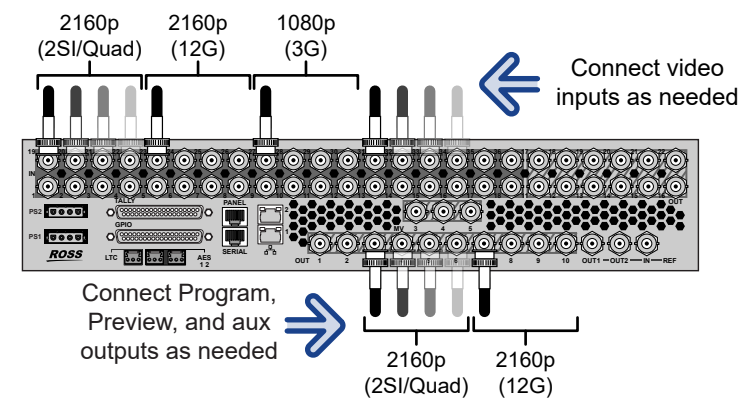
Remove frame door before cleaning the dust filter.



**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.

## UHD 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		



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

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