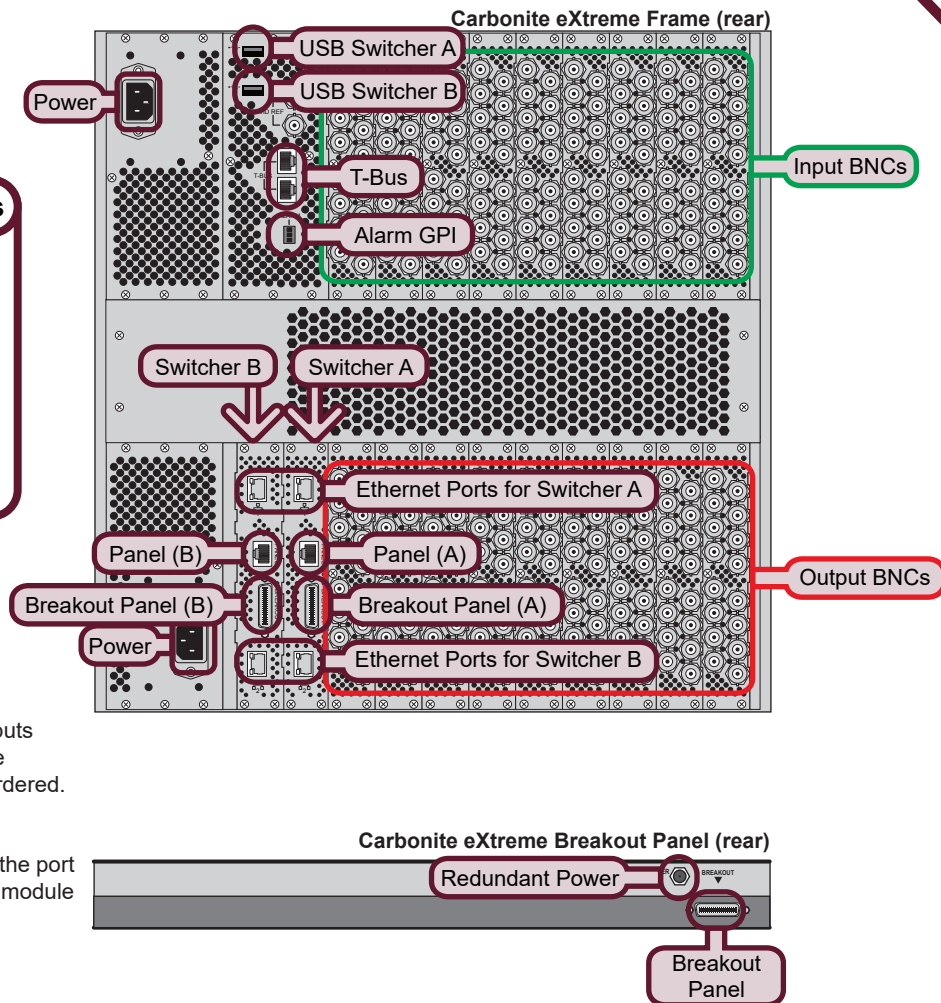


## Frame Ports and Connectors



### Reference Formats

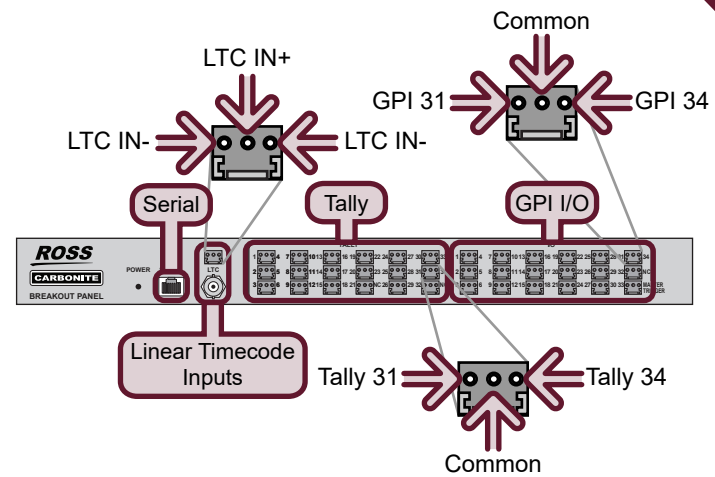
#### Input Formats

480i	59.94Hz
576i	50Hz
720p	59.94Hz
720p	50Hz
1080i	59.94Hz
1080i	50Hz
1080pSF	23.98Hz
1080pSF	29.97Hz
1080pSF	25 Hz

**Note:** The number of inputs and outputs on your frame depends on the options ordered.

**Note:** Ethernet port 1 is the port located on the Switcher A module for both Switcher A and B.

## Breakout Panel Ports and Pinouts



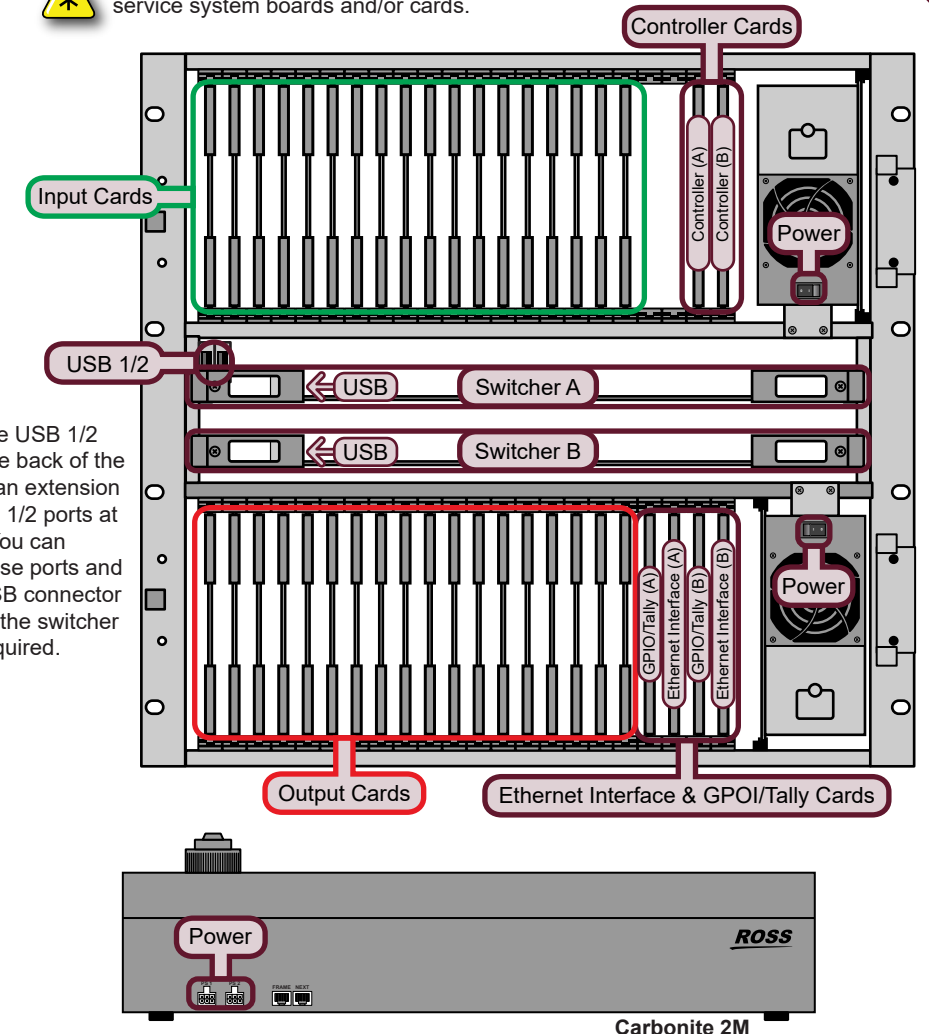
### Serial (female RJ-45)

Pin	RS-422
1	Tx+
2	Tx-
3	Rx+
4	n/c
5	n/c
6	Rx-
7	Ground
8	Ground

**Note:** GPI Output Master Trigger is used as an emergency bypass for Master Control. If the switcher fails, this GPI output is triggered.

## Power Switches and Frame Boards

**Important:** Only qualified service personnel are allowed to replace or service system boards and/or cards.



**Note:** The USB 1/2 ports on the back of the frame are an extension of the USB 1/2 ports at the front. You can disable these ports and use the USB connector directly on the switcher board if required.

**Note:** The C10 control panel has a power switch to power it on, or off. The other Carbonite control panels power on automatically when the power supply is plugged in.

## Specifications

	Default Values
NK-IPS	192.168.20.100
Frame IP (LAN1)	192.168.0.123
Frame IP (LAN2)	0.0.0.0
FTP User name	user
FTP Password	password

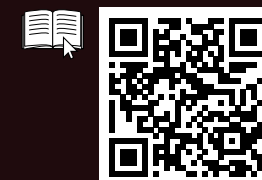
	Input Voltages
Panel	100 - 120V~ 220 - 240V~ 47-63Hz
Frame	100 - 240V~ 50-60Hz 6.25 - 3.15A

	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
Carbonite 10	24W 2.0A 12V
Carbonite 1-A	30W 2.5A 12V
Carbonite 1M	30W 2.5A 12V
Carbonite 2	42W 3.5A 12V
Carbonite 2M	50W 4.2A 12V
Carbonite 2S	54W 4.5A 12V
Carbonite 2X	66W 5.5A 12V
Carbonite 3S	66W 5.5A 12V
Carbonite 3X	84W 7.0A 12V
eXtreme	500W 34A 14.6V

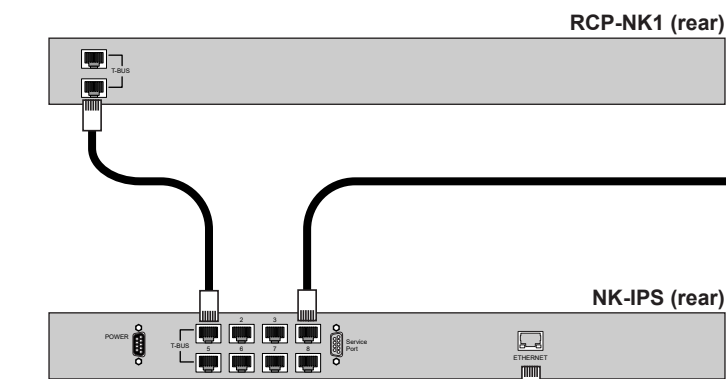
	Video Input Specifications
Equalization	>100m @ 1.5 Gb/s (using Belden 1694 cable)
Impedance	>300m @ 270 Mb/s (5°-40°C) 75 ohm, terminating
Video Inputs	SMPTE 259M/292M serial digital (non-looping)
Reference Inputs	Standard Definition — analog black (non-terminating, looping) High Definition — tri-level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

	Video Output Specifications
Return Loss	< -23dB @ 1.5GHz < -18dB @ 3GHz
Rise and Fall Time	800ps +/- 10% (SD) 240ps +/- 10% (HD)
Signal Level	800mV +/- 10%
DC Offset	0 Volts
Overshoot	< 10%
HD Mode	10-bit SMPTE-292M serial digital



## Power and Cabling

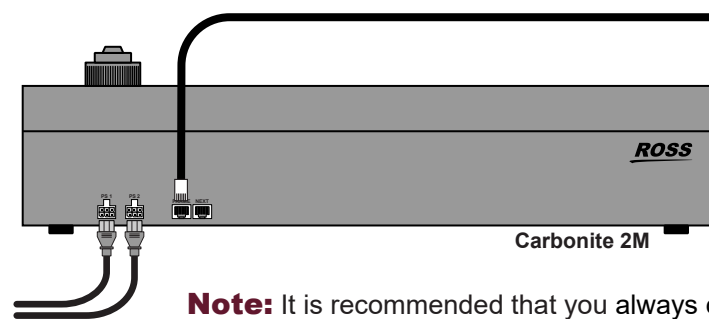
**Note:** Refer to the documentation that came with the Ross Routing Systems NK-IPS for setup information.



Network connection to computer running Dashboard Control System

T-Bus Connections  
Maximum 100m cable length

**Important:** Cable must be CAT5e, or higher, **Shielded Twisted Pair** to a maximum of 200m.



**Note:** It is recommended that you always connect the AC Power Adapter to the Control Panel before connecting to Mains Power.

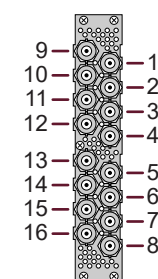
70-00394 Cable  
Maximum 2m cable length

**Note:** You must terminate the looping Reference connector if you are not using it.

Connect external reference or use internal reference

Terminate with 75 ohm BNC if not using

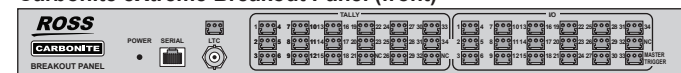
Connect video input sources as needed



Connect video outputs as needed

33-48 17-32 1-16

Carbonite eXtreme Breakout Panel (front)



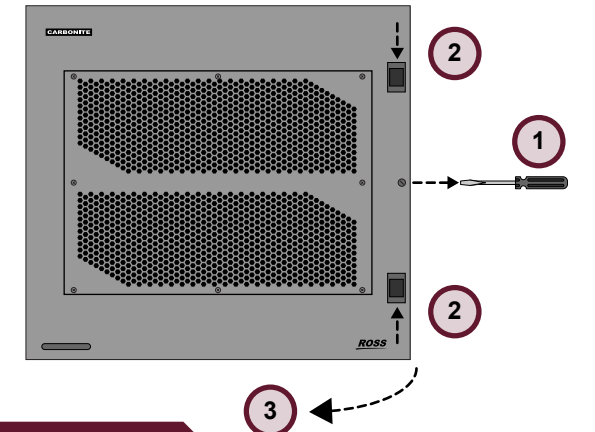
Redundant Power

Carbonite eXtreme Breakout Panel (rear)



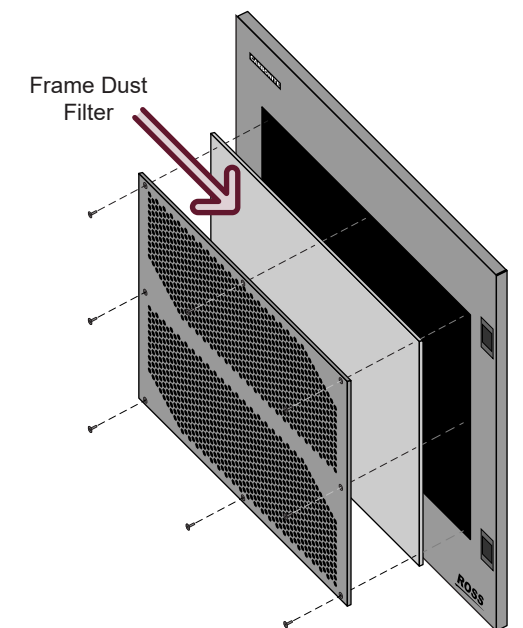
## Frame Door Opening

**Important:** Only qualified service personnel are allowed to replace or service system boards and/or cards.



## 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