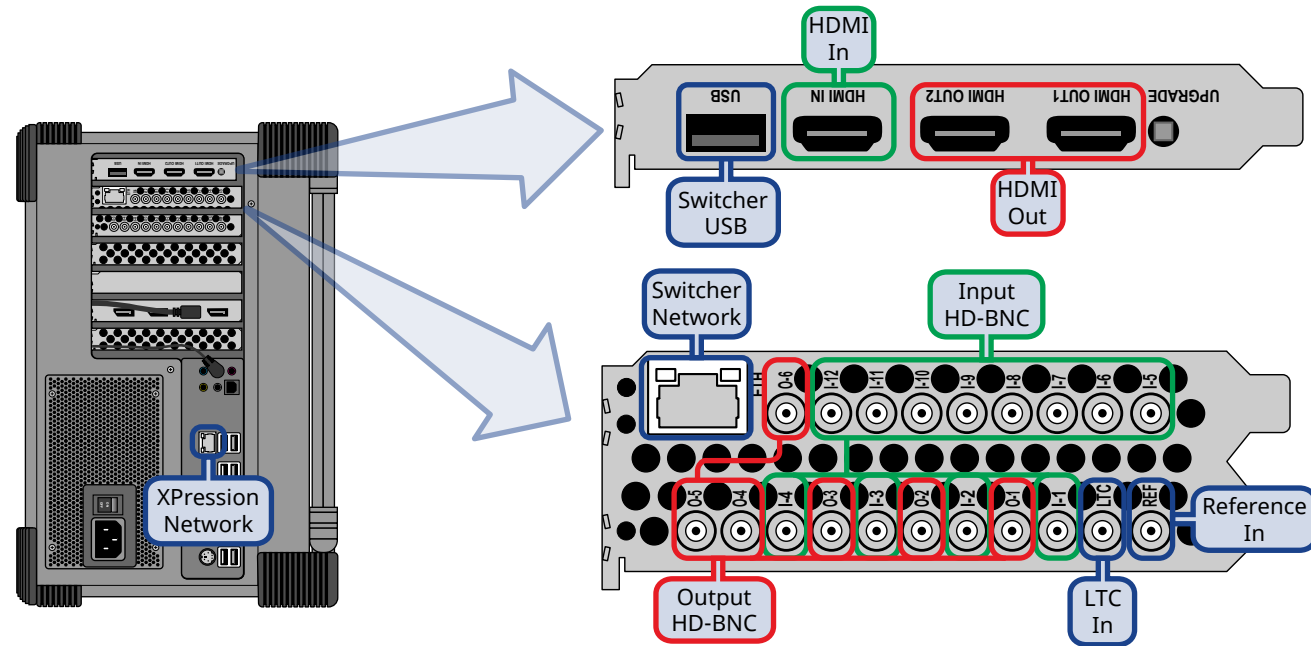


Ports and Connectors



Notes:

- IN1 loops to OUT1 and IN3 loops to OUT3 in bypass mode when the switcher sub-system is not running. (Cable length depends on the equipment you are using.)
- MultiViewer outputs are only available on OUT5 and 6.
- HDMI audio is not supported.
- HDMI output formats are the same as the switcher is operating in. No format conversion is applied to the output except for the MultiViewer that can be 1080p.
- The ethernet port on the right at the back of the server has to be set to the default IP address for XPression. The other port is set to DHCP.
- The Switcher USB port is connected to the switcher sub-system and not available to the Windows OS.

Specifications

Video Input Formats

| | |
|---------|-----------------|
| 480i | 59.94Hz |
| 576i | 50Hz |
| 720p | 59.94Hz |
| 720p | 50Hz |
| 1080i | 59.94Hz |
| 1080i | 50Hz |
| 1080pSF | 23.98Hz |
| 1080pSF | 25Hz |
| 1080pSF | 29.97Hz |
| 1080p | 25Hz |
| 1080p | 29.97Hz |
| 1080p | 50Hz Level A |
| 1080p | 59.94Hz Level A |

Default Values

| | |
|---------------|---------------|
| Switcher IP | 192.168.0.123 |
| XPression IP | 192.168.0.113 |
| FTP User name | user |
| FTP Password | password |

Tally Rating

| | |
|------------------|---------------------|
| Input Voltage: | 24VAC (rms) / 40VDC |
| Maximum Current: | 120mA |
| Impedance: | < 15 ohms |

Temperature

| | |
|------------|-------------------------|
| Operating: | 0 - 50°C (32 - 122°F) |
| Storage: | -20 - 60°C (-4 - 140°F) |

Power Consumption

| | | | |
|----------------|------|-------|------|
| PC | 185W | 1.54A | 120V |
| Audio Breakout | 45W | 3.75A | 12V |

Input Voltages

| | |
|-----|-------------|
| All | 100 - 120V~ |
| | 220 - 240V~ |
| | 47-63Hz |

Video Input Specifications

| | |
|---------------------------------|---------------------------------------|
| Equalization | >50m @ 3Gb/s |
| (Belden 1694 cable) | >100m @ 1.5 Gb/s |
| | >300m @ 270 Mb/s (5°-40°C) |
| Impedance | 75 ohm, terminating |
| Video Inputs, SDI | SMPTE 259M/292M (non-looping) |
| Video Inputs, HDMI | HDMI 1.4 High Speed Cable (Max 10m) |
| Ref Inputs (75 ohm, terminated) | SD — analog black HD — tri-level sync |

Video Output Specifications

| | |
|--------------------------|---------------------------|
| Return Loss (w/o bypass) | >15dB 5Mb/s to 1.5Gb/s |
| Return Loss (w/ bypass) | >13dB 5Mb/s to 1.5Gb/s |
| Rise & Fall Time | >10dB 1.5Gb/s to 3Gb/s |
| | 800ps +/- 10% (SD) |
| | 240ps +/- 10% (HD) |
| Signal Level | 800mV +/- 10% |
| DC Offset | 0 Volts |
| Overshoot | < 10% |
| SDI HD Mode | 10-bit SMPTE-292M |
| HDMI | HDMI 1.4 High Speed Cable |

Analog Audio Input Specifications

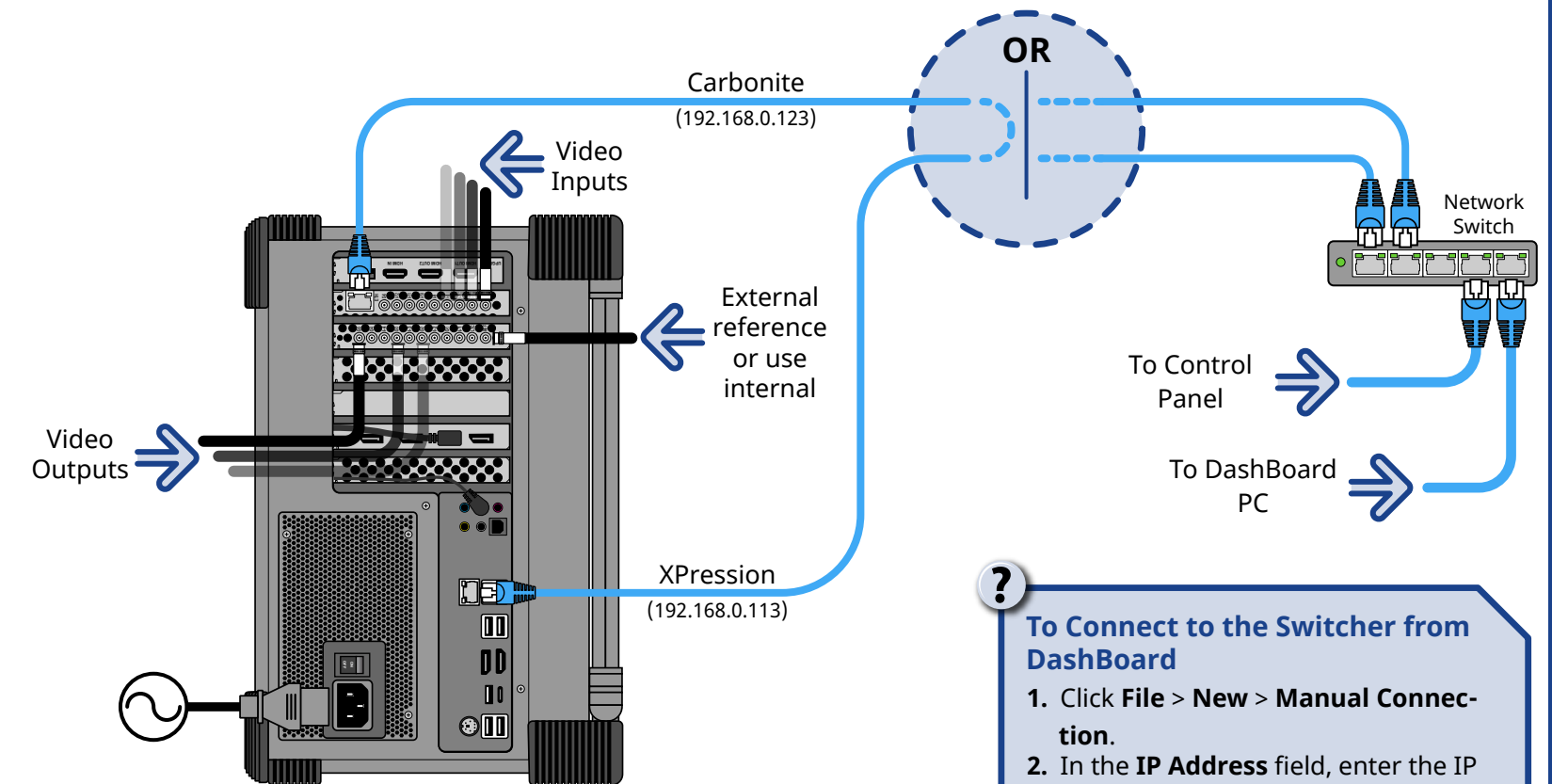
| | |
|-----------------------|-------------------------------------|
| Input Impedance | XLR: 2K ohm |
| | ¼" Jack: 10K ohm |
| Maximum Level | +24dBu |
| Frequency Response | ±0.3dB (22Hz to 20kHz @ Fs = 48kHz) |
| Signal to Noise Ratio | -95dB |
| "A" weighting | -98dB |
| CCITT weighting | -107dB |
| THD | >93dB or <0.002% |
| Amplitude Linearity | <0.8dB @ -100dBFS |
| Crosstalk | -94dB |

Analog Audio Output Specifications

| | |
|-----------------------|-------------------------------------|
| Maximum Level | +24dBu |
| Frequency Response | ±0.4dB (22Hz to 20kHz @ Fs = 48kHz) |
| Signal to Noise Ratio | -103dB |
| THD | >93dB |
| Amplitude Linearity | <0.3dB @ -100dBFS |
| Crosstalk | -106dB (20Hz to 20kHz) |

Power and Control Cabling

Note: If you direct connect XPression to Carbonite, you must run DashBoard on the XPression server and you cannot connect a separate control panel to Carbonite.

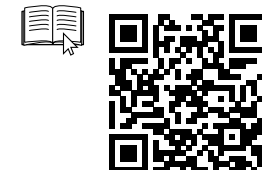


Note: It is recommended that you always connect the AC Power Cord to the device before connecting to Mains Power.

Direct Connect XPression and Carbonite Ethernet Ports
OR
Connect to External Network Switch

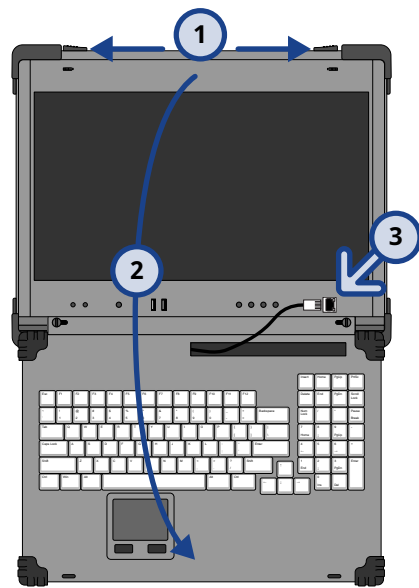
To Connect to the Switcher from Dashboard

1. Click **File > New > Manual Connection**.
2. In the **IP Address** field, enter the IP address of Carbonite, not the IP address of XPression.
3. Click **Detect Settings**.
4. Click **Finish**.

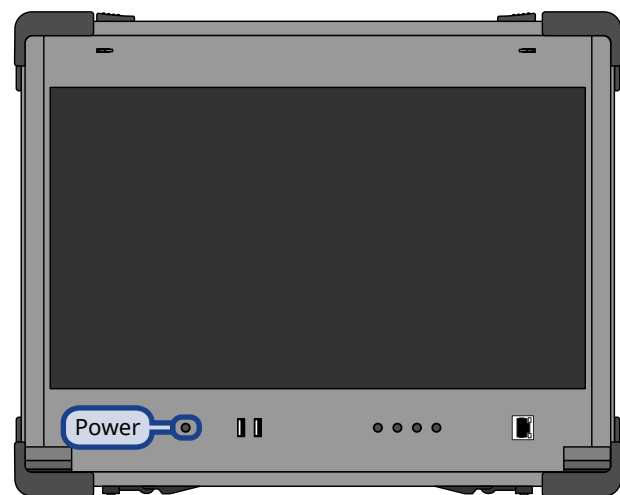
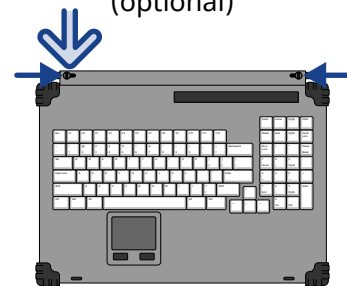


GRAPHITE PPC

Operation

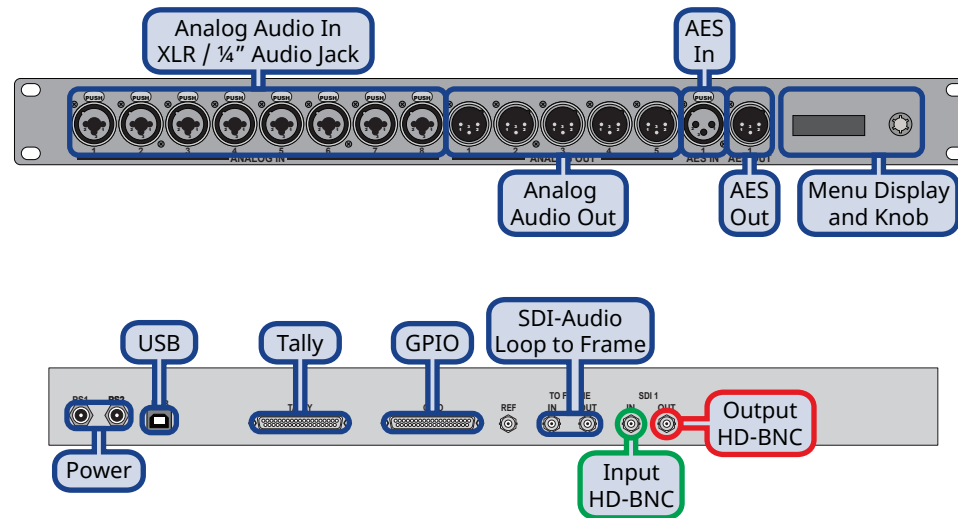


Tip: Push the levers in to detach the keyboard. (optional)



Flip feet out for a better viewing angle.

Audio Breakout Module (ABM)



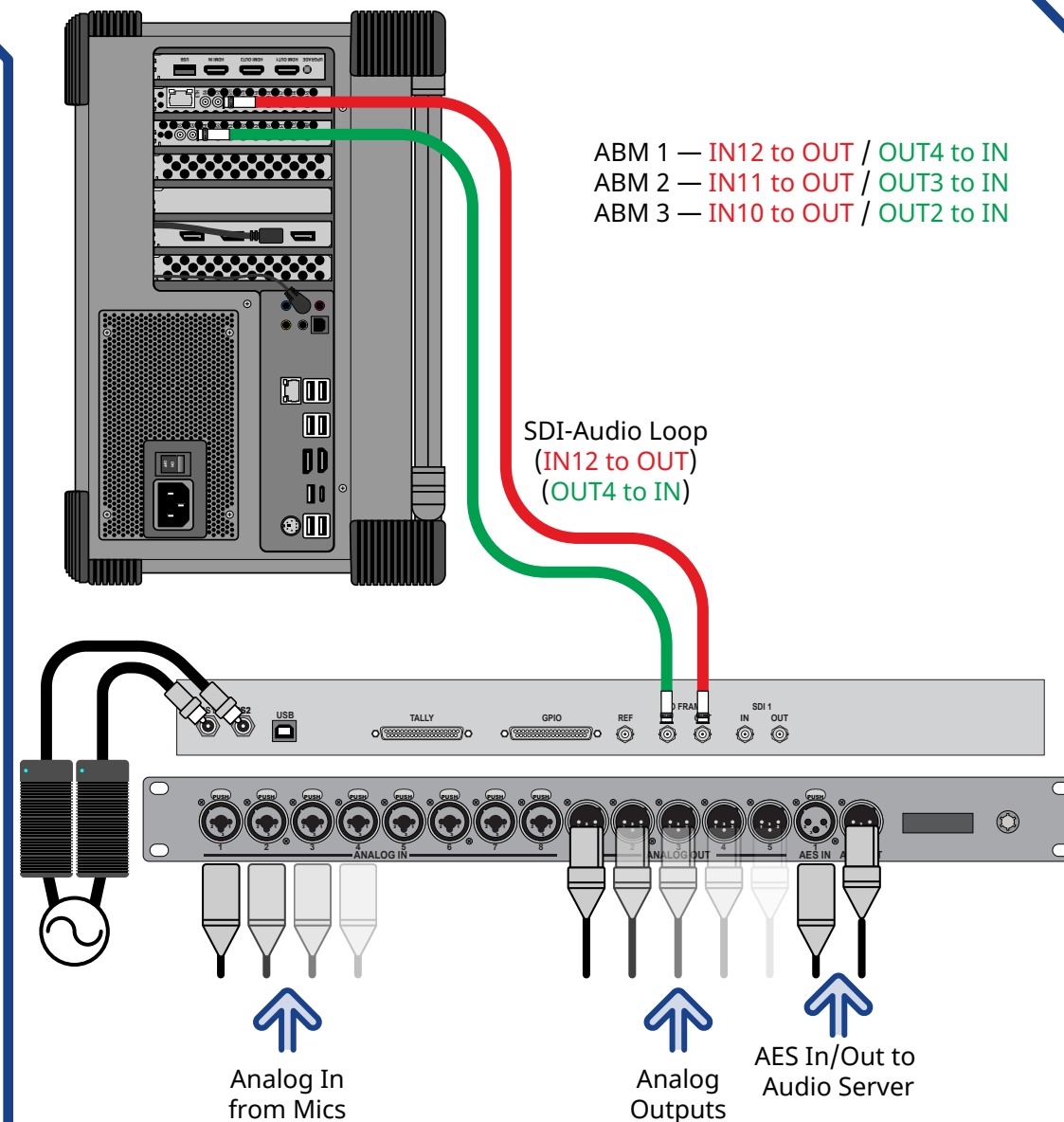
| Tally (female DB25) | | | |
|---------------------|----------|-----|----------|
| Pin | Tally | Pin | Tally |
| 1 | Tally 1 | 14 | Tally 14 |
| 2 | Tally 2 | 15 | Tally 15 |
| 3 | Tally 3 | 16 | Tally 16 |
| 4 | Tally 4 | 17 | Common |
| 5 | Tally 5 | 18 | Common |
| 6 | Tally 6 | 19 | Common |
| 7 | Tally 7 | 20 | Common |
| 8 | Tally 8 | 21 | Common |
| 9 | Tally 9 | 22 | Common |
| 10 | Tally 10 | 23 | Common |
| 11 | Tally 11 | 24 | Common |
| 12 | Tally 12 | 25 | Common |
| 13 | Tally 13 | | |

| GPIO (female DB25) | | | |
|--------------------|-------------|-----|-------------|
| Pin | Signal | Pin | Signal |
| 1 | GPIO I/O 1 | 14 | GPIO I/O 14 |
| 2 | GPIO I/O 2 | 15 | GPIO I/O 15 |
| 3 | GPIO I/O 3 | 16 | GPIO I/O 16 |
| 4 | GPIO I/O 4 | 17 | GPIO I/O 17 |
| 5 | GPIO I/O 5 | 18 | GPIO I/O 18 |
| 6 | GPIO I/O 6 | 19 | GPIO I/O 19 |
| 7 | GPIO I/O 7 | 20 | GPIO I/O 20 |
| 8 | GPIO I/O 8 | 21 | GPIO I/O 21 |
| 9 | GPIO I/O 9 | 22 | GPIO I/O 22 |
| 10 | GPIO I/O 10 | 23 | GPIO I/O 23 |
| 11 | GPIO I/O 11 | 24 | GPIO I/O 24 |
| 12 | GPIO I/O 12 | 25 | Ground |
| 13 | GPIO I/O 13 | | |

Notes:

- All digital audio must be reference locked (timed) to the same reference that the switcher subsystem is using. This includes both SDI embedded audio and AES audio inputs on the 1RU Audio Breakout Module.
- The SDI-Audio Loop HD-BNCs are for passing embedded audio to and from the audio mixer.
- The SDI1 In and Out HD-BNCs replace the HD-BNCs on the server that are used by the Audio Breakout Unit.
- The REF input is not available at this time.

Power and Cabling



ABM 1 — IN12 to OUT / OUT4 to IN
 ABM 2 — IN11 to OUT / OUT3 to IN
 ABM 3 — IN10 to OUT / OUT2 to IN

Important: Ensure that Phantom Power is turned off for the Analog Input unless you are connecting a microphone that requires phantom power. Connecting the line out from an audio device to the analog input with phantom power on could damage the audio device and/or the 1RU Audio Breakout Module. For added safety, a TRS phone connector should be used for line in audio sources.

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

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

