UltrA60

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

Ports, Pinouts, Diagnostics

- Power
- IO Group
- USB
- MADI
- LTC In
- Tally
- GPI I/O
- Reference In
- Output HD-BNCs
- Input HD-BNCs
- DIP Switches
- Network
- Reference Out
- MultiViewer Out
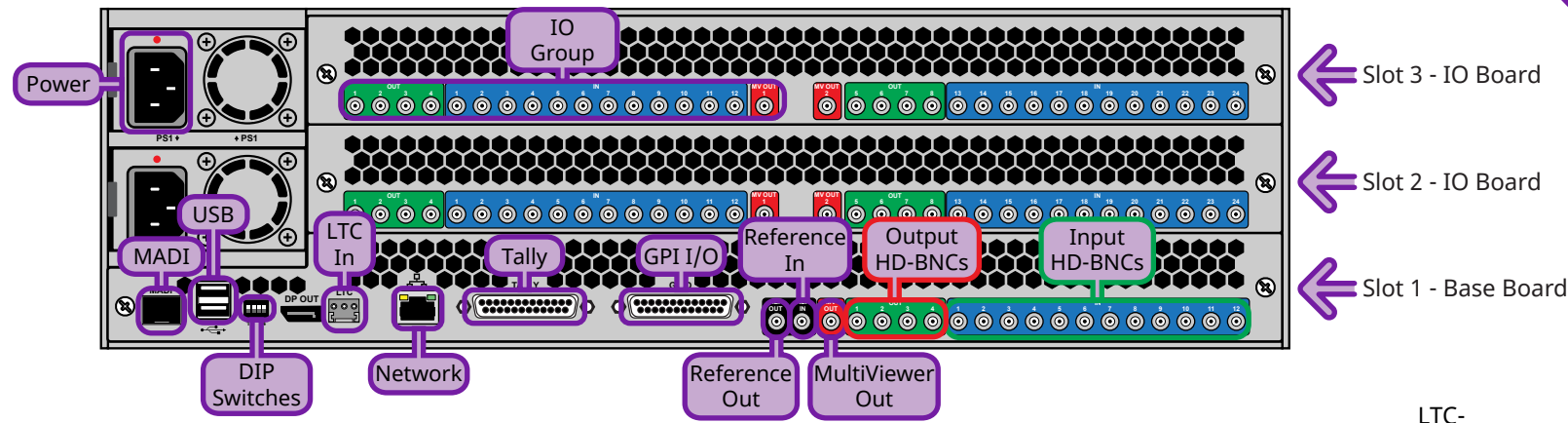
- Slot 3 - IO Board
- Slot 2 - IO Board
- Slot 1 - Base Board
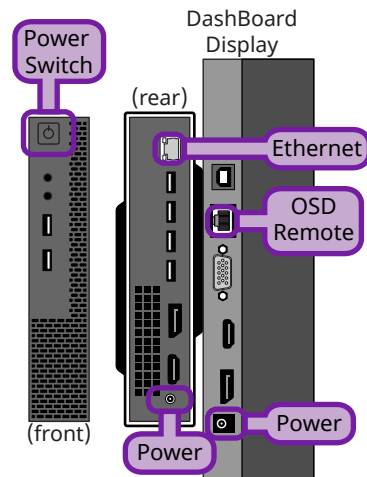
- LTC-
- LTC+
- LTC-

Notes:
- The MultiViewer outputs on the IO Boards can only display the inputs and outputs in that IO Group.
- The number of IO Boards depends on the options purchased with the frame. The Base Board is required for the switcher to operate.
- Audio is not embedded in the MultiViewer output.
- There are 3 USB ports on the frame that can be used, but only one can be used at a time.
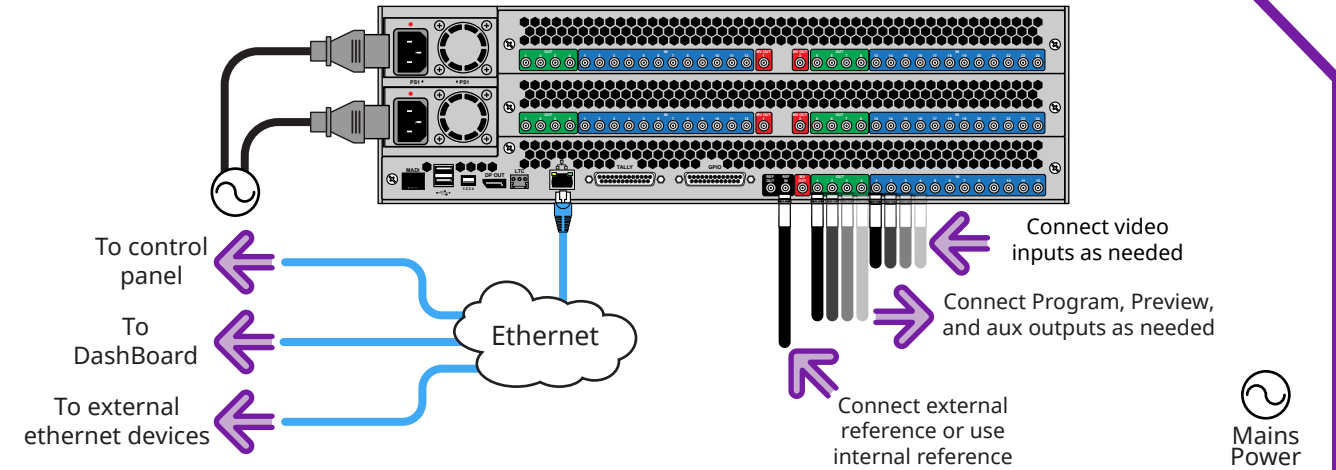
Tally
(female DB25)

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

GPI I/O
(female DB25)

Pin	GPI	Pin	Signal
1	I/O 1	14	I/O 14
2	I/O 2	15	I/O 15
3	I/O 3	16	I/O 16
4	I/O 4	17	I/O 17
5	I/O 5	18	I/O 18
6	I/O 6	19	I/O 19
7	I/O 7	20	I/O 20
8	I/O 8	21	I/O 21
9	I/O 9	22	I/O 22
10	I/O 10	23	I/O 23
11	I/O 11	24	I/O 24
12	I/O 12	25	Ground
13	I/O 13		

DashBoard Display

- Power Switch
- (rear)
- (front)
- Ethernet
- OSD Remote
- Power
- Power

Control Cabling

- To control panel
- To DashBoard
- To external ethernet devices
- Ethernet
- Connect video inputs as needed
- Connect Program, Preview, and aux outputs as needed
- Connect external reference or use internal reference
- Mains Power

Power Switches and Ports

- Door Connector
- Reset
- USB
- Power
- Front Panel Menu
- Mini-Positioner
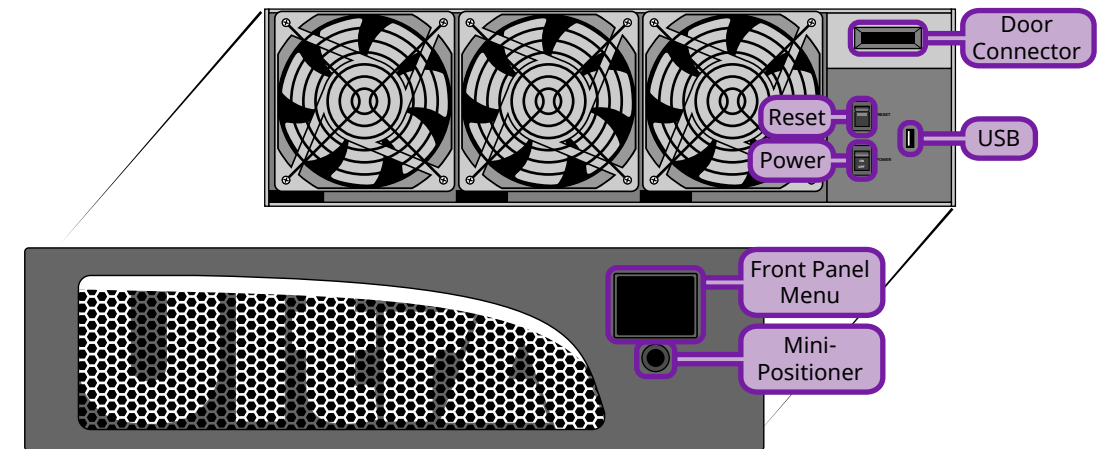
Note: The door is held on with strong magnets and the Door Connector. When removing the door, always pull directly away from the frame so as not to damage the connector. When attaching the door, align the connector first and firmly push the door to the right of the display to ensure that the connector is fully engaged.

Specifications

SDI Input Formats
720p 50/59.94/60Hz
1080i 50/59.94/60Hz
1080pSF 23.98/24/25/29.97/30Hz
1080p 23.98/24/25/29.97/30/50 (A)/59.94 (A)/60Hz
UHDTV1 23.98/24/25/29.97/30/50/59.94/60 (Single-Link 12Gb/s 2SI)

Default Values
Frame IP	192.168.0.123
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 (×2 Power Supples)
100-127VAC / 6.9A / 50-60Hz
200-240VAC / 3.45A / 50-60Hz

Video Input Specifications
Equalization (using Belden 1694A cable)	<35m @ 12Gb/s (0°-40°C) <175m @ 3Gb/s (0°-40°C) <260m @ 1.5Gb/s (0°-40°C)
Impedance	75 ohm, terminating
Video Inputs, SDI	SMPTE 259M/292M/424M/ST-2082 (non-looping)
Reference Inputs (non-terminating, looping)	Standard Definition — analog black High Definition — tri-level sync

Video Output Specifications
Return Loss	< -6.5dB @ 12GHz < -17.5dB @ 3GHz < -19dB @ 1.5GHz
Rise and Fall Time	27ps +/- 10% (UHD) 49ps +/- 10% (HD)
Signal Level	800mV +/- 10%
DC Offset	-7 mV
Overshoot	< 10%
SDI HD Mode	10-bit SMPTE-292M/424M
SDI UHD Mode	SMPTE ST 2082-1:2015 (1:2016)

ROSS

4890DR-200-02

UltrA⁶⁰

Rack Mounting

1

Rack Mount Arm
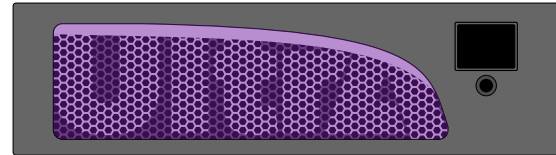
2

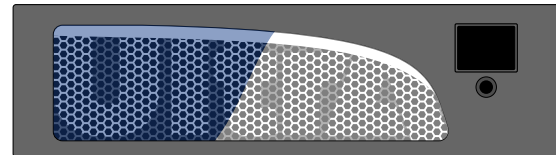
Rail Guide

Rack Mount Arm

3

FrameGlow Diagnostics

NORMAL:
Normal operation. No warnings. Actual color is user selectable.

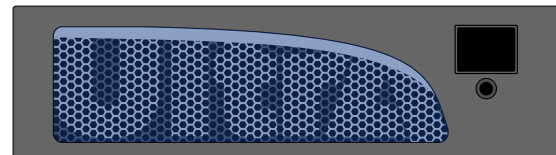**BOOTING:**
Frame hardware is booting up.
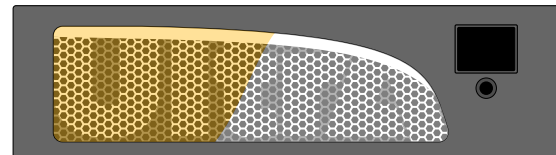(cycle from blue to white)
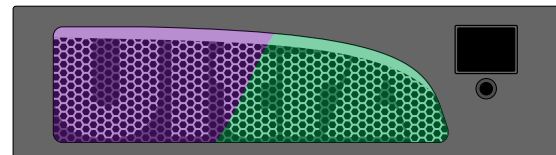
BOOTING:
Frame software is booting up.
(solid blue)

UPGRADE:
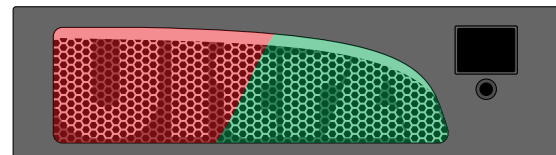Frame is being upgraded.
(cycle from yellow to white)

NO NETWORK:
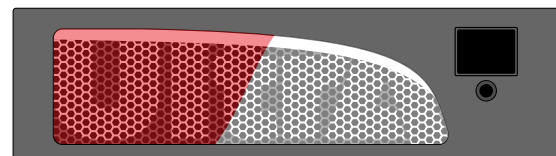Frame cannot detect a network connect.
(cycle from purple to green)

WARNING - Fan:
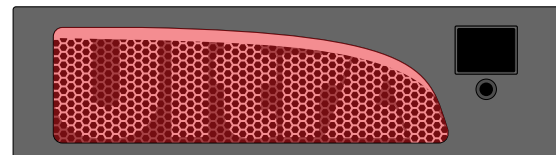Frame fan is not responding.
(cycle from red to green)

WARNING:
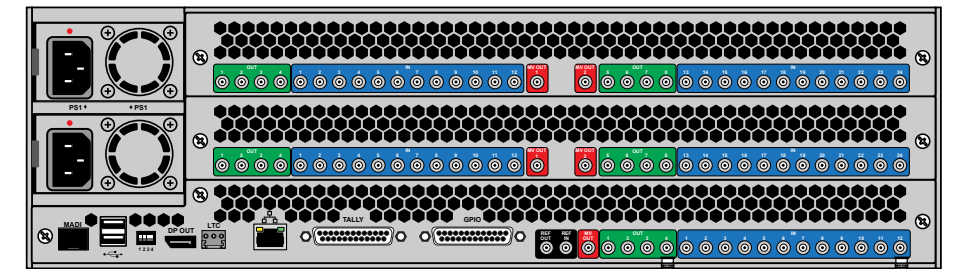Frame is over-temperature or there is a status warning.
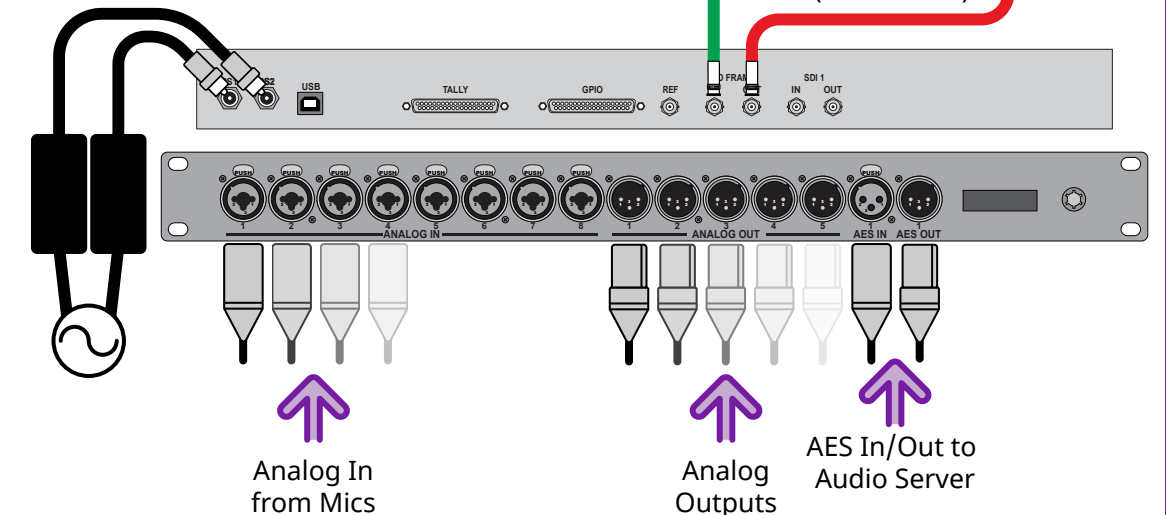(cycle red to white)

CRITICAL:
Frame is critially over-temp. Shutdown imminent.
(solid red)

1RU Audio Breakout Unit (ABU)

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

SDI-Audio Loop
(IN12 to OUT)
(OUT4 to IN)

Analog In from Mics

Analog Outputs

AES In/Out to Audio Server

ℹ **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 connecter should be used for line in audio sources.

∿ Mains Power

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

Power Consumption			
Audio Breakout Module	45W	3.75A	12V

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)

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

❓ 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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