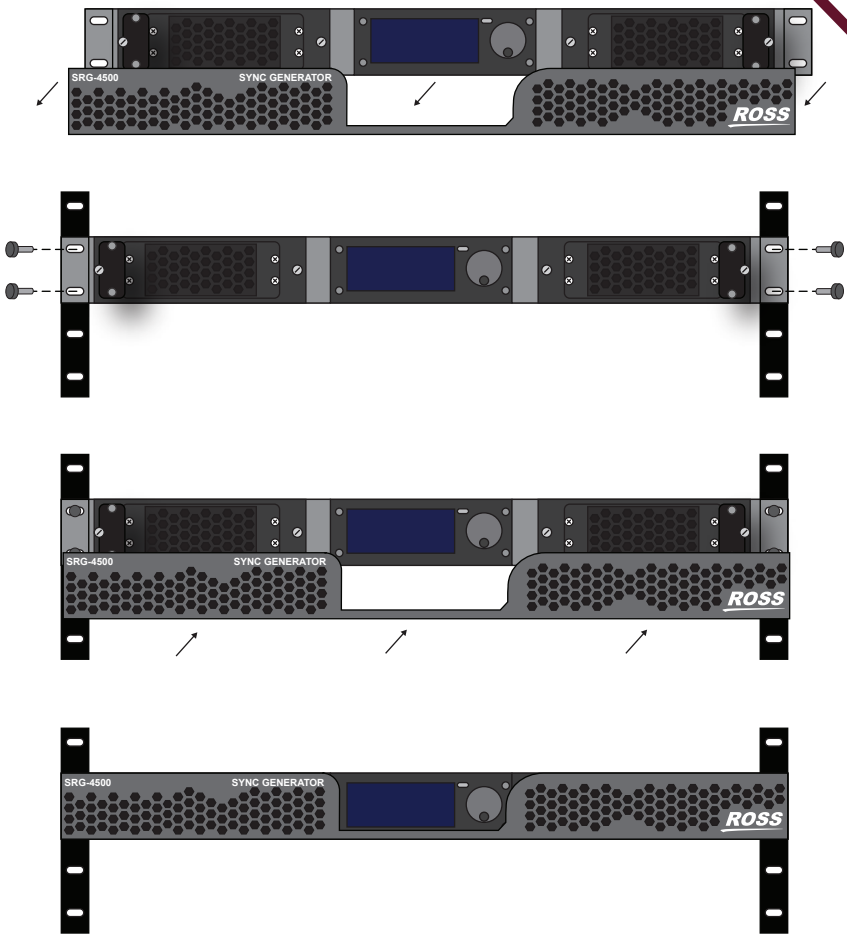


SRG-4500 Installation and Cabling



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Rack Mounting

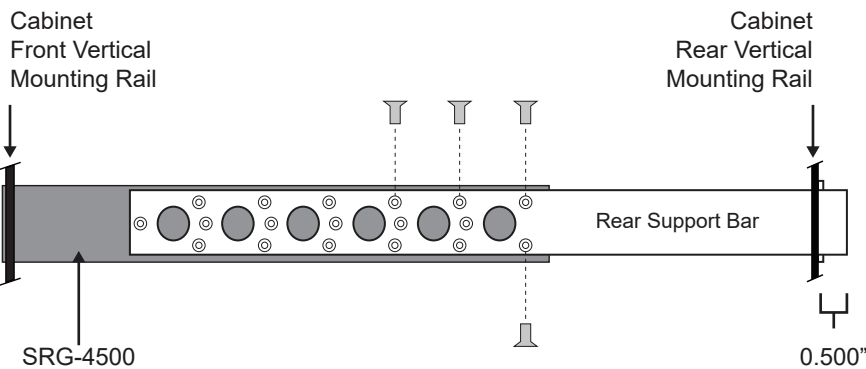


Rear Support Brackets

Warning: Do not use the support brackets to carry the SRG-4500. The brackets are not primarily designed for this purpose, and property damage or personal injury may result.

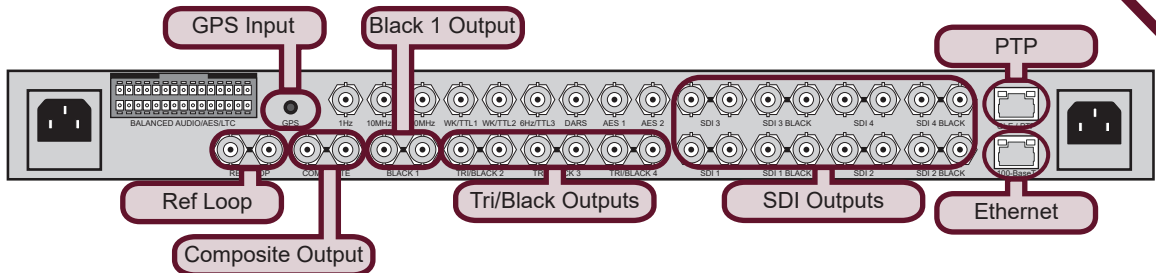
To install the support brackets

1. Select a mounting position that allows rear support bars to slide into slots of the brackets.
2. Choose the position that suits the cabinet depth and gives approximately a 0.5" projection beyond the previously mounted bracket.
3. Using four screws per bracket, attach both bars.



4. Mount the frame to the front rails of the rack cabinet using rack screws.
5. At the rear of the cabinet:
 - a) Slide the bracket slots over the rear of the support bars.
 - b) Secure to the cabinet rear rails with rack screws.

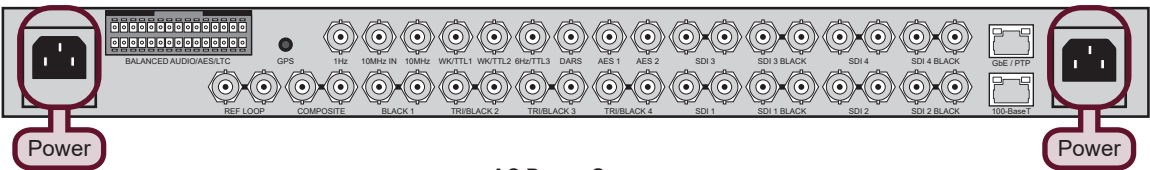
Cabling



Power Connections

Note: The SRG-4500 must have a warm-up period of at least 20 minutes.

Note: The SRG-4500 powers on automatically when the power supply is plugged in.



AC Power Source

Operational Voltage Range	120-230VAC 50-60Hz
Absolute Limits Voltage Range	90-264VAC, 47-63Hz
Operational AC Current (each PSU)	<130mA @ 230VAC <210mA @ 120VAC
Surge AC Current (each PSU)	<40A @ 230VAC <20A @ 120VAC
Power Consumption (dual PSU)	46VA (21W)
Switched Mode Power Supply	Single output, AC-DC, 65W 12VDC / 5.4A output

Specifications

Physical Specifications	
Clearance	Side: 2.00" (50mm) Rear: 3.00" (75mm)
Height	1.71" (43.5mm)
Width	19.00" (482.5mm)
Depth	15.95" (405mm)
Temperature	Op: 0°C to +40°C Non-op: -20°C to +60°C
SDI Formats	
525i/625i (270Mbps)	
720p (1.5Gbps)	
1035i (1.5Gbps)	
1080i (1.5Gbps)	
1080p (3Gbps)	

Video Reference Inputs	
Input Connector Type	2x75ohm BNC
Return Loss	>30dB to 10MHz
Inputs	NTSC Black Burst, 525 Sync, 625 Sync, PAL Black Burst
Pull-in Range	±50ppm
Jitter	Burst: <0.5° Sync: <1ns
Genlock Time Offset	Full color range, <0.5 degree of subcarrier

Frequency Reference Inputs	
Input Connector Type	1x50ohm BNC
Return Loss	>30dB to 10MHz
Inputs	10MHz continuous wave
Input Requirements	
Amplitude	1Vp-p (nominal), 2.5Vp-p (max.)
S/N Ratio	>40dB

Analog Video Outputs	
Connector Type	75ohm BNC
Impedance	75ohm
Return Loss	>30dB to 5MHz
Burst Amp. Accuracy	±5%
Burst Freq. Accuracy	±1Hz
Burst Freq. Long Term	<1ppm/year
Sync Amp. Accuracy	±3%
SCH Phase Accuracy	±5%
Blanking Level	±50mV
Timing Offset	
Range	Full color frame
Resolution (NTSC/PAL)	<0.5 degree of carrier
Resolution (Tri-Sync)	<1/54MHz

LTC Outputs	
Connector Type	MicroClasp™ 2mm
Number of Outputs	up to 4 balanced
Impedance	Differential balanced line driver output
Signal Amplitude	5V ±10% Balanced
Rise and Fall Time	5ns> Rise/Fall <44ns

Programmable Pulse Outputs	
Connector Type	3 unbalanced BNC
Impedance	75ohm
Signal Amplitude	3.3V ±10%
Rise and Fall Time	5ns> Rise/Fall <44ns
Jitter	8ns
Pulse Types	Burst Gate, Line Drive, Mixed Sync Mixed Blanking, PAL Square, Field Drive, F1/L7 or F1/L10, 6Hz 29.97Hz/30Hz, Word Clock 41/48KHz

GPS Receiver Antenna Input	
Input Connector Type	1x50ohm SMB jack
Antenna Voltage	+5.0V ±5%
Antenna Current	Internally limited to 50mA

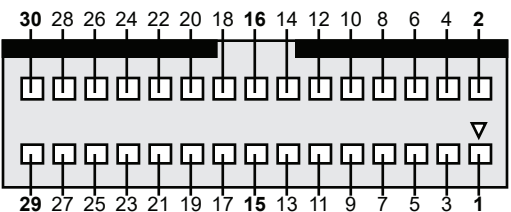
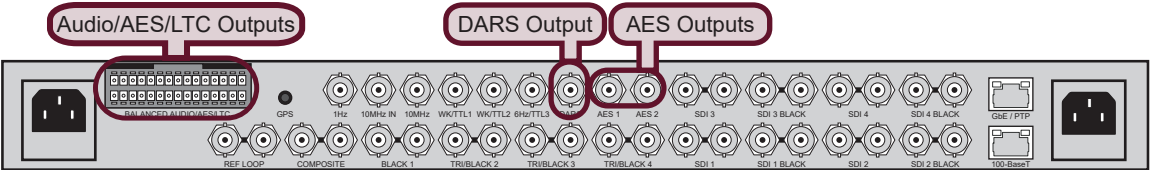
Ethernet Interface	
Connector Type	RJ45 - 8P8C
IEEE Standards Compliance	802.31-1990, 802.3u-1995, 1588-2008

SRG-4500 Installation and Cabling



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Audio Cabling



SRG-4500 Connector

Analog Audio Outputs

Number of Outputs	1 x stereo balanced pair
Connector Type	MicroClasp™ 2mm, 30pin
Output Impedance	50ohm ±5%
Termination Impedance	600ohm ±5%
Frequency	1Hz - 20KHz
Amplitude	Silence, -60 to +18dBm
Interruption	Programmable
Harmonic Distortion	<-50dB
DAC Resolution	18bits

AES/EBU Audio Unbalanced Outputs

Number of Outputs	2 x AES3id audio 1 x AES3id DARS
Connector Type	BNC
Impedance	75ohm
Signal Amplitude	1V ±10%
Rise and Fall Time	5ns> Rise/Fall <44ns
Jitter	8ns
Frequency	20Hz-20kHz
Amplitude	Silence and -60 to 0dBFS
Pre-emphasis	None
Interruption	Programmable
Resolution	24bits

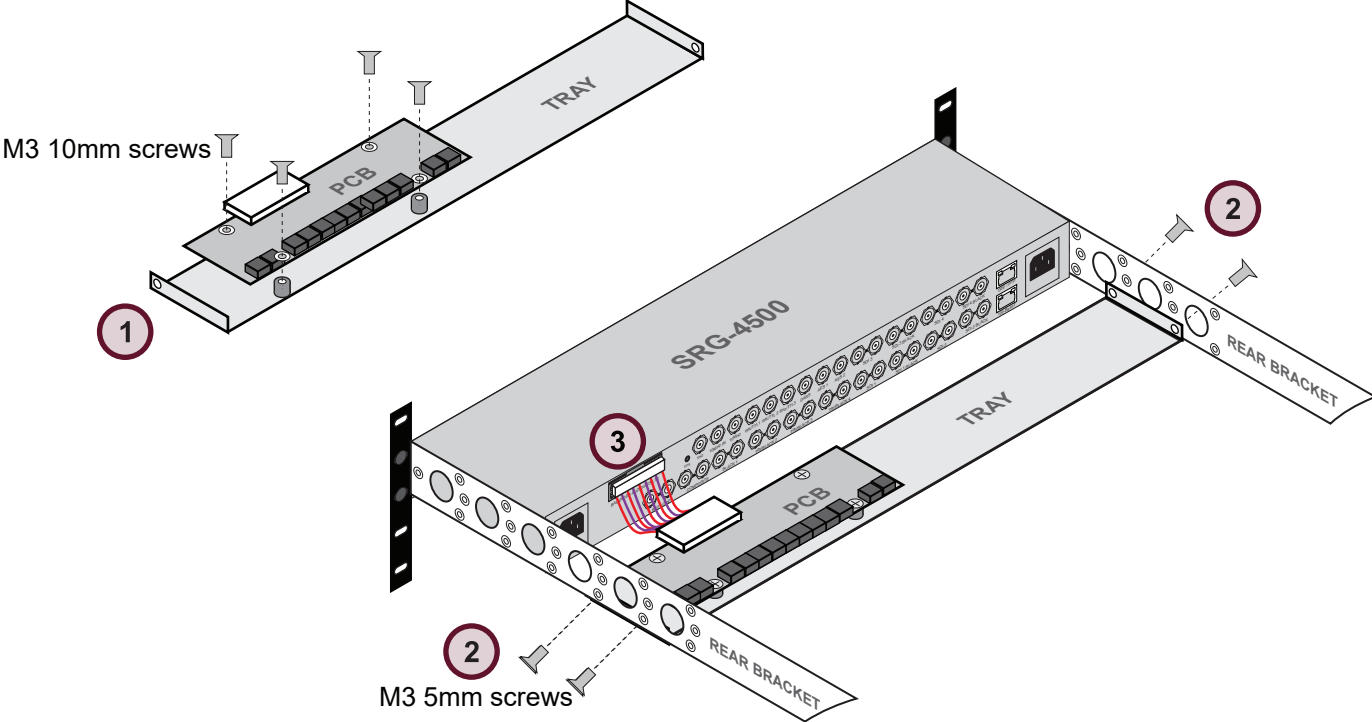
AES/EBU Audio Balanced Outputs

Number of Outputs	Up to 8 balanced AES3 1 x balanced DARS
Connector Types	Micro-clasp™ 2mm 10-pin (Molex #55959-1030) Mating connector: Molex #51353-1000
Impedance	Differential balanced line driver output
Rise and Fall Time	5ns > Rise/Fall <44ns
Jitter	8ns
Frequency	20Hz-20kHz
Amplitude	-60dBFS to 0dBFS
Pre-emphasis	None
Interruption	Programmable
Resolution	24bits

Balanced Audio/AES/LTC (female)

Pin	Signal/Function
1	Ground
2	Ground
3	LTC1-4/AES1-8/DARS/2.048MHz (+)
4	LTC1-4/AES1-8/DARS/2.048MHz (-)
5	LTC1-4/AES1-8/DARS/2.048MHz (+)
6	LTC1-4/AES1-8/DARS/2.048MHz (-)
7	LTC1-4/AES1-8/DARS/2.048MHz (+)
8	LTC1-4/AES1-8/DARS/2.048MHz (-)
9	LTC1-4/AES1-8/DARS/2.048MHz (+)
10	LTC1-4/AES1-8/DARS/2.048MHz (-)
11	LTC1-4/AES1-8/DARS/2.048MHz (+)
12	LTC1-4/AES1-8/DARS/2.048MHz (-)
13	LTC1-4/AES1-8/DARS/2.048MHz (+)
14	LTC1-4/AES1-8/DARS/2.048MHz (-)
15	LTC1-4/AES1-8/DARS/2.048MHz (+)
16	LTC1-4/AES1-8/DARS/2.048MHz (-)
17	LTC1-4/AES1-8/DARS/2.048MHz (+)
18	LTC1-4/AES1-8/DARS/2.048MHz (-)
19	AES2+
20	AES2-
21	AES1+
22	AES1-
23	DARS+
24	DARS-
25	AUD1+LEFT
26	AUD1-LEFT
27	AUD2+RIGHT
28	AUD2-RIGHT
29	Ground
30	Ground

Installing the Breakout PCB



Set the IP Address

Note: You must set the IP address of the SRG-4500 from the front control panel after power up. Contact your facility Network Administrator for the required network settings.

To set the IP Address for the SRG-4500

1. Use the **Rotary/Push Control** dial on the front panel to display the **Network Menu** on the front control panel: Operational Menu > System Menu > Network Menu.

Network Menu		
IP Address	=	000.000.000.000
Subnet Mask	=	000.000.000.000
Gateway	=	000.000.000.000
MAC Address	=	00:00:00:00:00:00

2. Use the **Rotary/Push Control** dial to set the IP Address, Subnet Mask, Gateway, and MAC Address for the SRG-4500.
3. Use the **Back** button to return to the Operational Menu.



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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