

UP Series

■ The UP4121 is designed for continuous duty in speech, music and paging sound reinforcement applications in churches, schools, offices, arenas, hotel meeting rooms, convention centers, recreation facilities and other venues demanding high performance, flexible features and rugged dependability.

■ The UP4121 offers two discrete inputs with priority. The main program input is actively balanced and terminated to a barrier strip connection on the rear panel. The second input is unbalanced, and terminated to a single RCA connector. A contact closure will give priority to the balanced input. Activation of the balanced input priority turns on 18Vdc (300mA) power at a barrier connector on the rear panel, which may be used to drive LEDs or relays. The unbalanced input features a parallel output and 0/-20dB sensitivity switch. 12dB/octave Bass and Treble shelving equalization with up to 12dB of boost or cut at 100Hz and 10kHz can be applied to the output signal.

■ Output modes include 4Ω and 25V, 50V, 70V and 100V constant voltage. The smart output stage is fully protected against permanent damage caused by overloading, shorts and extreme temperatures.

■ The UP4121 will operate on either 115 or 230VAC, 50/60Hz, supplied by a detachable IEC power cord. Insulated terminals to connect a back up 24Vdc battery are provided on the rear panel. Switchover to DC is automatic. A programmable stand-by mode allows the amplifier to be turned on remotely with a contact closure.

■ The front panel provides a master volume control and controls for the bass and treble shelving filters. The control knobs can be easily removed for security and the recessed shafts covered with inserts supplied with the unit. LEDs indicate power, stand-by mode, signal present at the output, peak and output overload.

■ Accessories include rack mounting ears and kits with rear supports.

Power Amplifier



Features

- 120 Watt RMS. Convection Cooled.
- 4Ω - 25V - 50V - 70V - 100V Outputs
- 2 Inputs w/ Priority
- High Pass/Low Pass Filters
- Shelf or Optional 2 RU Rack Mounting Kit
- UL, C-UL and CE Listed
- Automatic 24Vdc Backup Power Input

- Foreground/Background Music Systems
- Sound Reinforcement Systems
- Paging Systems
- Continuous-duty Applications

Specifications

Performance

Amplifier Power:	120W, nominal, 180W peak (10mS)
Frequency Response:	50Hz–15kHz \pm 3dB
Distortion:	Less than 1% THD at 1kHz nominal power
Noise:	Better than 80dB

Equalization

Output:	Treble shelving: \pm 12 dB at 10kHz, Bass shelving: \pm 12 dB at 100Hz
Inputs:	H-P filter: 12dB/oct. at 300Hz, L-P filter: 12 dB/oct. at 7kHz

Audio Inputs

Line Level, Balanced:	775mV, 100k Ω , barrier connector
Line Level, Unbalanced:	775mV, 50k Ω or 80mV, 50k Ω , RCA connector

Audio Outputs

Number of Channels:	One
Impedance:	4 Ω
Constant Voltage:	One each, 25V, 50V, 70V, 100V, barrier connectors
Line Level:	Parallel to Unbalanced In, RCA connector

Control Inputs & Outputs

Outputs:	
Overload Indicator:	18Vdc (300mA)
Inputs:	
Priority Switch Input:	Dry contact closure
Stand-by Switch Input:	Dry contact closure, barrier connectors

Controls

Front Panel:	Power switch, master Volume, Treble shelving, Bass shelving
Rear Panel:	Unbalanced input sensitivity switch, H-P Filter in/out switch, L-P Filter in/out switch, Mains Voltage Selector switch

Power Supply

115/230VAC (\pm 5%), 50/60Hz, 450VA,
DC (24V battery) 10A/Hr

Environment

Maximum Ambient:	131°F (55°C), Non-precipitating humidity
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Physical

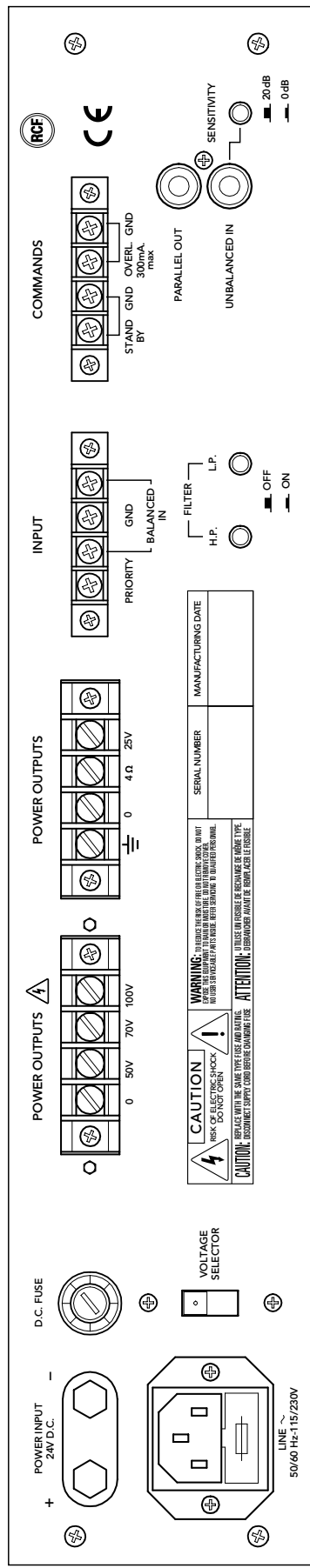
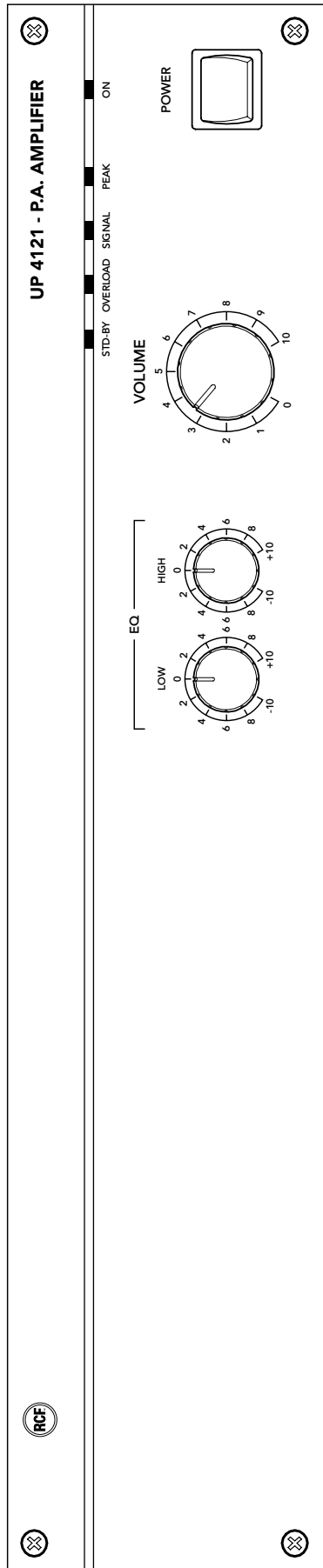
Dimensions (HxWxD):	3.46"x17"x12.4" (8.8 x 43.3 x 31.5cm)
Weight:	30.5 lbs. (11.4kg)
Finish:	Black painted or treated steel, white nomenclature

Safety Certifications

UL, C-UL, CE

Accessories

RM4000:	Rack Mounting Ears
RK4200:	Rack Mounting Kit w/rear support



Architects' & Engineers' Specifications

The power amplifier shall have a nominal output power of at least 120W RMS and shall have UL, C-UL and CE certifications. It shall operate on 115VAC or 230VAC at either 50Hz or 60Hz and have its source power supplied by a detachable IEC power cord. In addition the unit shall be capable of being directly powered by a 24Vdc source such as storage batteries. It shall have a power switch on the front panel. The unit shall have a constant-impedance output to drive a 4 Ω load at its rated output. It shall also have 25V, 50V, 70V and 100V constant-voltage outputs with like performance. The unit shall be capable of being remotely turned on from a stand-by mode with a contact closure.

The amplifier shall have an active balanced input and an unbalanced input. The balanced input connection shall be made through barrier connectors. The unbalanced input shall have a sensitivity switch on the rear panel to select between a nominal input signal of 0dB or -20dB. This input shall be parallel to an unbalanced output connector. Unbalanced connections shall be made through RCA connectors. The unit shall be capable of being connected to two different input program sources. The balanced input shall be programmable to completely exclude the unbalanced input when its priority link is activated by a contact closure. The inputs shall be equipped with a high-pass filter and a low-pass filter having a response of 12dB/octave and fixed 300Hz and 7kHz, respectively. Each of these filters shall be enabled by a switch on the rear panel. An overload condition shall cause an auxiliary voltage of 18Vdc at 300mA to be present at a pair of terminals on the rear panel.

The unit shall have, on its front panel, continuously variable controls for master volume as well as bass and treble shelving filters. The shelving filters shall have a range of ± 12 dB with the frequency for the bass fixed at 100Hz and the treble fixed at 10kHz. LED status indicators shall be provided on the front panel to indicate power, stand-by mode, signal present at the output terminals, peak signals near clipping and an overload condition. Optional rack mounting ears and kits with rear supports shall be available from the manufacturer. The integrated mixer/amplifier shall be a Model UP4121 manufactured by RCF.

