

DATA SHEET

MA120

120W MIXING AMPLIFIER



The MA120 is a 120W single channel mixing amplifier. Designed for ease of use, the front panel of the MA120 includes volume and microphone controls, providing immediate visual feedback regarding system operation. The MA120 is equipped with four priority levels for audio routing: one emergency input, one paging input, two mic/line inputs, and four stereo line, mono summed inputs. It's audio performance, ease-of-use, and versatile feature set makes the MA120 ideal for a variety of professional audio applications.

FEATURES

- Single channel; 120 watts of continuous power
- Supports 4Ω and 70V/100V outputs
- Class D amplifier topology
- Intuitive front and rear panels
- Four priority levels for audio routing
- 24V priority output overrides local volume controls
- Dedicated emergency input with mute all switch
- Paging mic input with contact closure and chime
- Two mic/line level inputs with 48V phantom power
- Four stereo inputs
- Fanless operation
- Internal universal power supply
- Auto standby mode
- Rack mountable (2RU)
- CE marked, UL listed, and RoHS compliant
- Covered by Biamp Systems' five-year warranty

ARCHITECTS & ENGINEERS SPECIFICATION

The mixing amplifier shall provide 1 emergency input that shall be triggered by either contact closure or VOX level. The emergency input shall support user adjustable volume and VOX activation level via the rear panel. The mixing amplifier shall provide 1 paging input connection for receiving microphone or line level analog audio signals via Euroblock connectors. The paging input shall support volume control, user adjustable gain, and chime level via the rear panel. The mixing amplifier shall provide 2 balanced input connections for receiving microphone or line level analog audio signals via either Euroblock or RCA connectors. The balanced input shall support user adjustable gain and EQ via the rear panel. The mixing amplifier shall provide 4 unbalanced input connections for receiving line level analog audio signals via RCA connectors. Each unbalanced input shall support user adjustable gain via the rear panel. The mixing amplifier shall support 4 priority levels of audio transmission. The mixing amplifier shall provide output connection for the transmission of line level analog audio signals via Euroblock connector. The output channel shall support user adjustable EQ via the rear panel. The mixing amplifier shall include a switchable standby mode via the rear panel that reduces power consumption to 0.5 watts. The standby mode shall activate automatically after 10 minutes if no signal is detected. The standby mode shall be activated/deactivated manually by toggling the standby mode button on the front panel. The mixing amplifier shall be CE marked, UL listed, and shall be compliant with the RoHS directive. Warranty shall be five years. The mixing amplifier shall be Biamp® MA120.

SPECIFICATIONS

INPUTS

Number of Inputs

Emergency (line level with contact):	1
Paging Mic (mic level with contact):	1
Mic/Line (balanced):	2
Stereo Line (unbalanced):	4
Input Priority Levels:	4
Priority Input Contact:	Yes
Chime:	Yes
Tone Control:	Yes
Wall Panel Controls:	Yes
VOX Mute:	Yes
Music Level Control:	Yes

Front Panel Indicators: Signal present, clipping, overload condition, emergency mode active, paging active, VOX active

Emergency Input

Nominal Input Sensitivity:	0 dBV (1 Vrms)
THD+N (Pre-Out, @ -6dB):	< 0.5%
Frequency Response (-3dB):	45 Hz - 20 kHz
Input Impedance:	5 kΩ

Paging Mic

Nominal Input Sensitivity (Bal. Mic):	-45 dBV (5.6 mVrms)
THD+N (Pre-Out, @ -6dB):	< 0.4%
Frequency Response (-3dB):	
Balanced Mic:	165 Hz - 20 kHz
Unbalanced, Balanced Line:	20 Hz - 20 kHz
Gain:	-15 to +15 dB
Chime Length:	2 sec
Input Impedance:	2 kΩ

Mic A, B

Nominal Input Sensitivity:	
Balanced Mic:	-45 dBV (5.6 mVrms)
Balanced Line:	-12 dBV (250 mVrms)
Unbalanced Line:	-12 dBV (250 mVrms)
THD+N (Pre-Out, @ -6dB):	< 0.2%
Frequency Response (-3dB):	
Balanced Mic:	165 Hz - 20 kHz
Unbalanced, Balanced Line:	20 Hz - 20 kHz
Phantom Power (balanced only):	+48VDC (7mA/input)
VOX Attenuation (Mic A, B, Inputs 1-4):	30 dB
Input Impedance:	2 kΩ

Inputs 1-4

Nominal Input Sensitivity (Unbal. Line):	-12 dBV (250 mVrms)
THD+N (Pre-Out, @ -6dB):	< 0.1%
Frequency Response (-3dB):	20 Hz - 20 kHz
Input Impedance:	10 kΩ

OUTPUTS

Number of Output Channels:	1
Output Connectors:	4-pin, 0.3 inch (7.6 mm) Euroblock
70V/100V Mode:	Yes
Low Impedance Mode:	Yes
Priority Output Contact:	Yes
Minimum Operational Load:	4Ω

Amplifier

Topology:	Class D
RMS Output Power (1% THD):	120 W
Dynamic Power:	150 W
SNR (1% THD):	> 90 dB
THD+N (@ -6dB):	< 0.5%
Protection:	Temperature, overcurrent, overvoltage, undervoltage

Priority Output

Voltage:	24V
Max Current:	0.5A

Pre-Out

Nominal Output Level:	0 dBV
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Standby

Wakeup Sensitivity:	
Inputs 1-4:	-43 dBV (6 mVrms ± 10%)
Mic A, B (RCA):	-50 dBV (5 mVrms ± 10%)
Mic A, B (Balanced, VOX off):	-74 dBV (0.3 mVrms ± 10%)
Time to Auto Standby:	10 min

Power Consumption (100-240VAC 50/60Hz)

Normal Operation:	160W
Idle Operation:	12.5W
Standby Mode:	0.5W

Cooling:

Convection

Overall Dimensions

Height (without feet):	3.5 inches (89 mm)
Width:	19 inches (483 mm)
Depth:	11.8 inches (300 mm)
Weight:	11.0 lbs (5.0 kg)

Environmental

Ambient Operating Temperature Range:	32 - 95° F (0 - 35° C)
Humidity:	0-95% relative humidity (non-condensing)
Altitude:	0-6,600 ft (0-2000m) MSL

Compliance

FCC Part 15B (USA)
UL listed (USA and Canada)
CE Marked (Europe)
RoHS Directive (Europe)

MA120 BACK PANEL



ALINP
Active local input panel



D-ALINP
Active local input panel
(Decora® style)



MICPAT-D
All call paging microphone

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