AA120

120 Watt Strategy Series Mixer Amplifier

AA120

Features

- 5 Mic Inputs w/ Phantom Power
- 1 Stereo Aux Line Input
- Input 1 Has VOX Send
- Tape Output
- Dual Line Outputs
- Pre Out/Power in Patch
- Remote and VOX Activated Mute
- Zone 1 Output 120 Watts
- Zone 2 Output 1 Watts @ 8Ω
- VCA Level Control
- Bridge I/O (Mix Bus Combining)
- Special Low Cut Filter is 6 dB/Octave at 400Hz and also Bypasses Front Panel Bass Control To Allow Use with Paging Horns like the Atlas Sound APX40TN and AP-15T

Applications

The AA120 is a 120 Watt six input channel mixer amplifier engineered with unique features to assist the contractor or installer in today's commercial business audio environment. It is designed for distributed paging and background music (BGM) systems, small to medium speech privacy systems, and in applications where music on hold (MOH) plus paging is required.

Genenal Description

With five microphone/line inputs and one stereo line input, the AA120 will accommodate a variety of input sources including paging microphones, CD players, and digital music receivers. This six input mixer amplifier features muting and output options along with a very unique Bridge In/Out feature to allow combining of multiple amplifiers in ballroom applications without the need for external relays. VCA remote level control circuitry is included which may be assigned to the BGM input or globally for the entire amplifier.

The output power of 120 Watts will match nicely with Atlas Sound FAP, SM, SD, and GD Series loudspeakers. 25V, 70.7V, 100V, and 8Ω outputs are provided.

Specifications

Power Output	120W RMS @25V/70.7V/100V8Ω	
Frequency Response	50Hz – 20kHz (±3dB)	
THD+N	<1% at rated power (1kHz)	
Sensitivity		
Input 1	Line/Tel	316mV (-10dBV) 10kΩ (600Ω w/ optional transformer)
	Mic	.316mV~3.16mV (-70dBV~ -50dBV)
Inputs 2-5	Line	316mV (-10dBV) 10kΩ
	Mic	.316mV~3.16mV (-70dBV~ -50dBV)
Input 6	Line	300mV/100mV (-10dBV/-20dBV) Selectable
Outputs	Main: Transformer coupled, balanced, 8Ω, 25V, 70V, and 100V Zone 2- 8Ω Unbalanced 1W, 2.83 V Zone 2- 600Ω Balanced 1.5V	
Signal to Noise Ratio	Mic > 55dB Line > 55dB Telephone > 75dB	
Tone Controls	Bass ±10dB @ 100Hz Treble ±10dB @ 10kHz	
Indicators	Power, Signal, Peak	
Power Consumption	300 Watts	
Width	16.54" (420mm)	
Height	4.219" (107mm)	
Depth	14.06" (357mm)	
Weight	26.44 lbs (12kg)	

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AA120
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Architect and Engineer Specifications

The mixer/amplifier shall be Atlas Sound Model AA120. The mixer/amplifier shall control and mix up to six input signals and deliver an audio output of 120 Watts into 8Ω, 25V, 70.7V, and 100V. The amplifier output shall be transformer isolated with a frequency response 50Hz – 20kHz (-3dB) with less than 0.5% THD at rated output. The output regulation shall be less than 2dB, no load to full load. It shall be capable of operation from a 110/120VAC 50Hz/60Hz line. The amplifier shall have thermal and short circuit protection.

The mixer/amplifier shall have a switch-selectable MIC/TEL balanced input to accept either low impedance microphone or Tel/Line Level signals with -50/-10dBv sensitivity. The MIC/TEL input impedance shall be 10kΩ or 600Ω with optional input transformer. The MIC/TEL input shall include an auto mute (VOX Mute) sensitivity control. The MUTE SENSE control will allow threshold adjustment of mute activation. The mixer/amplifier shall include four switch selectable MIC/Line inputs. The MIC/Line input impedance shall each be 10kΩ. The mixer/amplifier shall have defeatable global Phantom power. The mixer/amplifier shall include a stereo summing auxiliary input, unbalanced, -10dBv, with dual-RCA jacks. The Auxiliary input impedance shall be 10kΩ. The mixer/amplifier shall include two Zone 2 outputs, a 1 Watt at 8Ω output and a transformer isolated 600Ω output with a maximum level of 1.5V. The Zone 2 outputs shall be assigned to the auxiliary input and has one rear panel rotary level control for both outputs. The mixer/amplifier rear panel input and output interconnects shall be via Phoenix and terminal connectors. The mixer/amplifier Mute assignment for Inputs 2-6 is via a rear panel dipswitch. Input Mute is accomplished via the REMOTE MUTE function, controlled by an external switch closure or via Input 1 VOX. The Mute assignment shall not affect the Zone 2 output.

The mixer/amplifier shall have a 400Hz 6dB per octave low cut filter. The filter can be defeated via the dipswitch located on the rear panel. When engaged, the Bass Tone control is bypassed. The mixer/amplifier shall have a Tape-Out RCA unbalanced output. The Tape -Out shall be Pre Tone and the Low Cut Filter. The mixer/amplifier shall have a Line A and Line B RCA unbalanced output. The Line outputs are POST Master Level, tone controls, Low Cut Filter, and Power Amp In. The mixer/amplifier shall have a Pre-Out RCA unbalanced output. The Pre Out shall be POST Tone, Low Cut Filter and Pre Master Level. The mixer/amplifier shall have a Power Amp input for use with an external signal processor. The Power Amp In shall be Pre Master Level. Both the Line and Pre Outputs shall be calibrated to 0dBv and equals 1V RMS out.

The mixer/amplifier shall incorporate a balanced Bridge Input/Output allowing multiple amplifiers to be combined on one mixed bus. The Bridge input shall be activated via an external switch closure. The mixer amplifier shall incorporate VCA remote level control circuitry for either Master or Auxiliary level via an optional external 10K potentiometer.

The AA120 front panel shall include volume controls for Inputs 1-6 and one Master Level control. System Signal, Peak and Power LEDs shall also be incorporated. The mixer/amplifier front panel shall also include Bass and Treble tone controls (100Hz and 10kHz, ±10dB). The tone controls shall not affect the Zone 2 output. The mixer/amplifier front panel shall include an AC Mains power switch.

A rear panel AC receptacle (unswitched) shall be included for connection of external equipment. Dimensions (W x H x D) shall be 16.54" (420.1mm) x 4.21" (107.mm) x 14.06" (357.1mm). Front panel finish and material shall be black ABS resin and case finish and material shall be black powder coated sheet steel.

The optional rack-mount bracket kit shall be an Atlas Sound AARMK2-0.

The optional input one transformer shall be an Atlas Sound AAIT-600.

The optional level security covers shall be an Atlas Sound AAVCC-5.

The optional VCA 10kΩ level control shall be an Atlas Sound AAVC-10K.

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