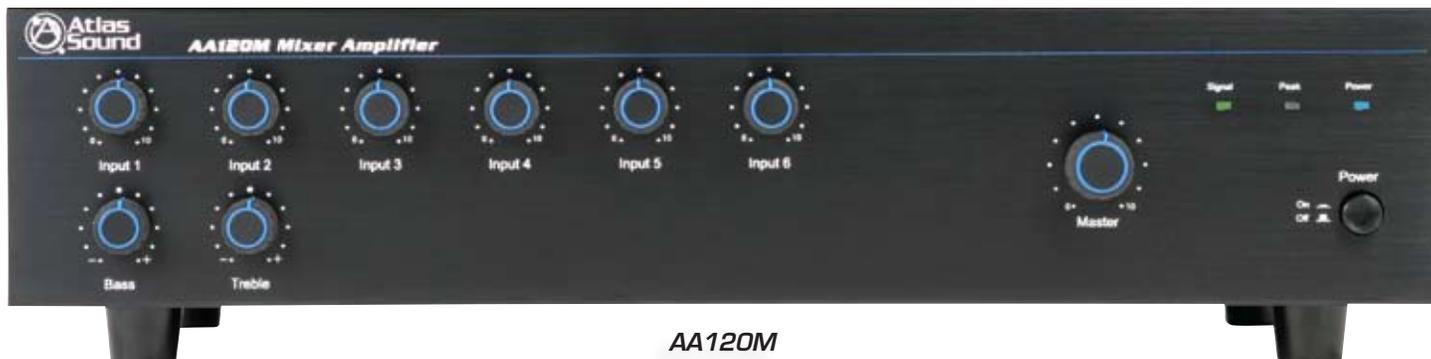




AA120M

120 Watt Strategy Series Mixer Amplifier with Module Input



AA120M

Features

- Zone 1 Output 120 Watts
- Zone 2 Output 1 Watt @ 8
- Zone 3 Output 1.5V @ 600
- Inputs 1-4 Mic/Line Switchable
- Input 5 Line Level
- Input 6 Module Input
- Inputs 1-4 and 6 Can Send or Receive Mute Commands
- 2 Mute Buses, 1 Vox, and 1 Contact Closure
- 1 Tape and 1 Line Output
- Mute Assignable Internal Relay
- 24VDC Available on Rear Panel for Priority Attenuators
- Pre-Amp Out/Power Amp In Loop
- Bridge In/Output-Allows Mix Bus Combining of Multiple AA120MS
- Special Low Cut Filter is 6dBu/Octave at 400Hz and also Bypasses Front Panel Bass Control to Allow Use with Paging Horns like the Atlas Sound APX40TN and AP-15T

General Description

The AA120M 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.

With four microphone/line inputs, one module input and one stereo line input, the AA120M 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. The AA120M makes it easy to power or activate external devices through the 24VDC supply and the on board relay that can be triggered through the VOX or an external switch. 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	Max. Average Power @ 50Hz – 20kHz with .5% THD (10-80kHz filter) 8Ω, 1kHz, 120W RMS
Transformer Outputs	8Ω 120 Watts RMS 25V 120 Watts RMS 70V 120 Watts RMS 100V 120 Watts RMS
Frequency Response	50Hz – 20kHz (±3dB)
Distortion	<1% at rated power (1kHz)
Sensitivity	
Input 1	Line/Tel 316mV (-10dBV) 10kΩ Mic .316mV~3.16mV (-70dBV~ -50dBV)
Inputs 2-4	Line 100mV (-10dBV) 10kΩ Mic .316mV~3.16mV (-70dBV~ -50dBV)
Input 5	Line 316mV/100mV (-10dBV/-20dBV) Selectable
Input 6	Module Input
Outputs	Main: Transformer Coupled, Balanced, 8Ω, 25V, 70.7V, and 100V Zone 2- 8Ω Unbalanced 1 Watt Zone 2- 600Ω Balanced 1.5V
Output Regulation	Less than 2dB, no load to full load
Signal to Noise Ratio	Input 1-4 >55dB Input 5 >75dB
Tone Controls	Bass ±10dB @ 100Hz Treble ±10dB @ 10kHz
Indicators	Power, signal, peak
Power Consumption	300 Watts
Width	16.54" (420mm)
Height	4.24" (107.7mm)
Depth	13.84" (351.5mm)
Weight	26.75 lbs (12.16kg)

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AA120M
(Back View)

Architect and Engineer Specifications

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 50/60Hz line. The mixer/amplifier shall have convection cooled. 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 3 switch selectable MIC/Line inputs. The MIC/Line input impedance shall each be 10kΩ. Each Mic/Line input shall have VOX Mute send or receive capability. The mixer/amplifier shall have one Module input to accept a variety of input modules. 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 each be 10kΩ. The mixer/amplifier shall include a Zone 2 output 1 Watt at 8Ω and a Zone 3 transformer isolated 600Ω output with a maximum level of 1.5V. Each input has separate Zone 2 & 3 rear panel rotary level controls. The mixer/amplifier rear panel input and output interconnects shall be via Phoenix and terminal connectors. The mixer/amplifier VOX Mute assignment for Inputs 1-4 is via a rear panel selector switch. REMOTE MUTE function is internally jumper assignable and controlled by an external switch closure. The mixer/amplifier shall have internal jumper mute assignment for Zone 2 & 3 outputs. 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 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 as one mixed bus. The Bridge input shall be activated via an external switch closure. The mixer amplifier shall incorporate VCA remote level control for either Master or Auxiliary level via an optional external 10K potentiometer. The mixer/amplifier shall have a external 24V 250mA DC supply to power external devices. The mixer/amplifier shall incorporate relay contacts triggered via the VOX or external contact closure.

The AA120M 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 or 3 outputs. 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). Net weight shall be 26.75 lbs (12.1kg). Front panel finish and material shall be black ABS resin and case finish (and material) shall be black powder coated sheet steel.

- The mixer/amplifier shall be Atlas Sound Model AA120M.
- 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.
- The optional masking generator module shall be an Atlas Sound AA-SMG.
- The optional 3 tone generator module shall be an Atlas Sound AA-TG.
- The optional Mic/Line module shall be an Atlas Sound AA-ML.

