

PRO

AMPLIFIERS

PRODUCT SPECIFICATION SHEET

TYPE:  
POWER AMPLIFIERS



PRODUCT  
**SERVO 120A**

DESCRIPTION  
**POWER AMPLIFIER**

SERIES  
**SERVO**

CATEGORY  
**AMPLIFIERS**



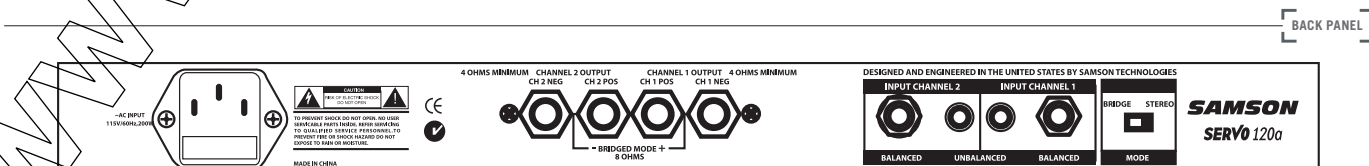
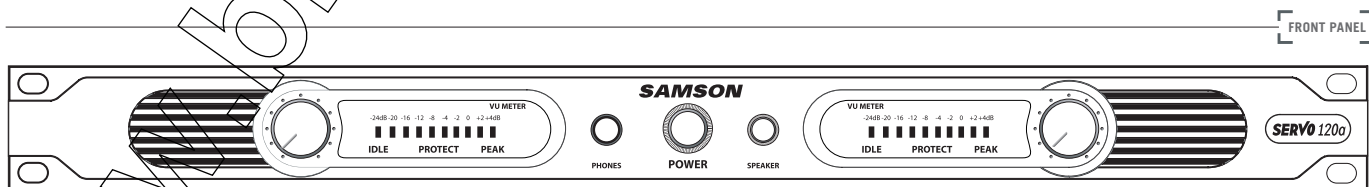
**GENERAL DESCRIPTION**

The Servo 120a is a single rack-space stereo power amplifier which is optimized for use in both professional and project recording studio environments as well as for live performance. It delivers 60 watts of power per channel into 4 Ohms (or, in Bridge mode, 120 watts into 8-Ohms) over the full frequency spectrum, from 3 Hz to 65 kHz. Both balanced 1/4" TRS and unbalanced RCA-type input connectors are provided, along with 5-way binding post output connectors. Front-panel controls and displays include a power switch, independent left- and right-channel input level controls, ten-segment LED meters, a Protection LED, and a convenient headphone jack and speaker on/off switch for private cue monitoring. Suggested applications for the Servo 120a include:

- Amplification for nearfield monitors or cue headphones in both professional and project studios - Its superb audio specs and whisper-quiet performance (its convection cooling design means there is no fan), along with its unique front-panel speaker on-off switch and dedicated headphone jack, make the Servo 120a the perfect complement to any recording studio.
- Home Theatre applications - The power and flexibility offered by the Servo 120a (it can be used either as a 60 watt stereo amplifier, or, in bridge mode, as a 120 watt monophonic amp) makes it the perfect addition to any home theatre, in conjunction with any DVD player or other surround sound system. For example, use it in stereo mode to drive your main front left/right speakers, using your home stereo to drive the rear

satellite speakers—or use the Servo 120a in Bridge mode to drive your center channel or subwoofer with power galore.

- As an extension to a home hi-fi system - The Servo 120a boasts professional specs which far exceed that of most consumer products. For a real "studio" experience in your own home, try connecting your home hi-fi amplifier's auxiliary outputs to the Servo 120a's inputs (thus using your hi-fi amp as a preamplifier) and then connect your existing speakers to the Servo 120a's outputs. If you fall in love with the sound (as we're sure you will), you might want to substitute a professional pre-amplifier for your existing hi-fi amp—and, from there, you may well end up graduating to higher-level speakers. High quality sound is addictive—don't say we didn't warn you!
- Powering public address systems in permanent installations - The Servo 120a can be used to effectively drive PA speakers in installations such as classrooms and corporate conference rooms.
- Onstage monitoring - In small and medium-sized onstage areas (such as in clubs, lounges, etc.), the Servo 120a can be used to drive stage monitors, allowing the performers to hear themselves without having to rely on onstage equipment amplification.
- MIDI rack monitoring - Taking only a single rack space, MIDI musicians can easily incorporate the Servo 120a into their existing rack of gear. Combined with a pair of high quality stage or studio speakers, this makes for an excellent monitoring system that can accurately reproduce the broad range of frequencies typically output by devices such as synthesizers, samplers, and digital audio workstations.



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SERIES  
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FEATURES

- > Power to spare - Each channel delivers 60 watts of power into 4 Ohms (or, in Bridge mode, 120 watts into 8 Ohms).
- > Clean, crisp sound - Impressive audio specifications such as .01% THD, S/N of 105 dB, crosstalk of 75 dB, and frequency response of 3 Hz to 65 kHz guarantee ultra-clean sound quality in any live or recording environment.
- > Independent input level controls for each channel with 41-position detents.
- > Ten-segment LED meters for each channel continuously display power output levels and allow you to correct for overloading (clipping) conditions.
- > Front-panel Protection LED shows you at a glance overheating or faulty wiring conditions.
- > Innovative front-panel Speaker on/off switch and dedicated headphone jack enables private cue monitoring of the input signal.
- > Both electronically balanced 1/4" TRS and unbalanced RCA-type input connector jacks are provided along with 5-way binding post output connectors.
- > Convection cooling (no fan) makes for whisper-quiet operation even in critical listening environments such as recording studios.
- > Unique bipolar circuit design that continuously keeps DC output during idling at or near 0 volts (thus keeping idle speakers at their zero point). This serves to minimize heat overload problems by effectively preventing the Servo 120a from applying power when unnecessary.
- > Protection relay circuitry (linked to the DC offset circuitry) that prevents "thumps" when powering on or off. This means that you can use the Servo 120a with a single power strip into which a mixer or other audio devices are connected, without danger of damage to connected speakers.
- > Toroidal transformer power supply.
- > Rugged construction (an all-steel chassis with a titanium finish and a lightweight anodized aluminum heat sink) makes the Servo 120a eminently roadworthy.
- > Flexible design allows the Servo 120a to be used free-standing or, with the use of included rack ears, mounted in any standard 19" rack (taking just a single rack space).
- > Three-year warranty.

ARCHITECT'S & ENGINEER'S SPECIFICATIONS

The Samson Servo 120a shall be a single space rackmount stereo power amplifier. It shall deliver 60 watts per channel at 4 Ohms or 120 watts into 8 Ohms in bridge mono mode. It shall have 1/4" balanced inputs and RCA unbalanced inputs. It shall be a bi-polar design and use a toroidal transformer. The front panel shall have volume controls and LED metering for each channel. The front panel shall also have a headphone output jack and an associated speaker mute switch. The rear panel shall also have binding posts for the amplifier outputs.

SERVO 120A SPECIFICATIONS

**Rated Output Power, per channel (@ 1 kHz)**

**Stereo mode**

4 Ohm, <0.05% THD+N .....	60 W
4 Ohm, 1% THD+N .....	80 W
8 Ohm, <0.05% THD+N .....	50 W
8 Ohm, 1% THD+N .....	55 W

**Bridge mode**

8 Ohm, <0.05% THD+N .....	120 W
8 Ohm, 1% THD+N .....	150 W

**Typical Distortion, per channel**

THD+N (80 kHz LPF @ 1 kHz rated output power)....	0.01%
IMD (SMPTE 4-1, 60 Hz & 7 kHz @ rated output power)...	0.03%

**Signal To Noise Ratio**  
(22Hz - 22kHz bandwidth @ 1dB below rated output power).....

.....	105 dB
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**Frequency Response** .....

10 Hz - 20 kHz +0, -0.5 dB
3 Hz - 65 kHz, +0, -3.0 dB

**Input Sensitivity** .....

-10dBv on the RCA inputs,
+4 dBu on the 1/4" inputs to
achieve rated power. (Level
control set to maximum)

**Crosstalk** (adjacent channels) .....

-75 dB, 1 kHz
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**Output DC Offset Voltage** .....

± 50 mV, DC Servo Controlled
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**Headphone Output Level**.....

400 mW (into 100Ω @
1% THD+N)

**Dimensions** (W x D x H) .....

19" x 11.5" x 1.75"
483mm x 292mm x 44mm

**Weight**.....

15.4 lbs (7 kg)
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