

Boulder

# 1162

Stereo Power Amplifier

#### Since 1984



# Welcome

Boulder has the rare combination of technical and creative skills required to design this visually stunning highperformance power amplifier.

# Concept

The 1162 Stereo Power Amplifier was based on the design of the 1160 Stereo Power Amplifier, but it has been improved immensely.

The 1162 including all of its casework is designed, machined, and assembled all under one roof in our 23,000 square foot dedicated facility in Louisville, Colorado. The heat sinks are machined from a solid aluminum billet, providing optimum heat dissipation. The feet have special constrained layer dampening material for vibration reduction.

Like the rest of the 1100 series, the front panel is derived from a topographical map of Flagstaff Mountain, less than 30 miles from our facility.

The 1162 make use of a large 32 Amp power inlet connector. The 32A IEC connector incorporates low-resistance, precision-machined brass pin-andsleeve connections for safe and reliable high-current electrical transfer.

# Inside the 1162

Under the top panel it is equally impressive. All the boards inside the 1162 are designed, populated, and tested at our facility in Colorado. This means quality and reliability are assured.

The large, main brute power supply features dual toroidal transformers, one for each channel of output. Dual transformers ensure ideal noise separation between each channel.

Both transformers "float" in a shielded, welded steel enclosure and are high-mass encapsulated in a unique proprietary epoxy potting resin to eliminate any audible hum or operational vibration, regardless of AC mains purity.

The use of many smaller, distributed capacitors provides faster power delivery and recharging, as well as lower harmonic noise during operation. Dynamic and transient responses are thus greatly improved with minimal drawbacks

The 1162 makes use of more output devices than are necessary to reach the 300 Watt per channel specification. This reduces the the thermal cycling range required of each individual device and the amount of thermal stress placed

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upon each device during high power handling–each device is responsible for only a fraction of the total output power demanded at any given time.

Better distortion figures are also realized, as each device is unstressed and handles only a portion of its rated output power.

#### Outside the 1162

Output is delivered to the loudspeakers via two pairs of custom, spade-only binding posts. Internal connection of both pairs of binding posts is parallel, so no sonic advantage exists in connecting one set over the other. A large, conductive surface area is provided to achieve the lowest contact resistance possible. Connection options for banana plugs or bare wire are not supported. Banana plugs have been shown to decrease in spring tension over time, which in turn increases impedance through the connector and decreases reliability. Bare wire is at best a haphazard form of connection with the very real potential for shorted outputs. Smart Current Output Stage

The Boulder 1162 uses a new bias scheme for the output stage. This stage is more advanced than anything done previously in power amplifiers, regardless of brand. Known as "Smart Current," this new circuit gives Class A performance without the prior drawbacks of traditional designs. Traditional Class A designs make the chassis become overly hot. Boulder's Smart Current output circuit continuously monitors the output current drawn by the speaker and adjusts as needed without unnecessary heat consumption.

Boulder's Smart Current Output Stage continuously adjusts for variances due to the speaker's frequency-dependent load impedance all through analog circuitry. All of the crossover distortions by the transition from one polarity to the other are eliminated. Boulder's Smart Current output stage increases efficiency, sonic performance, and longevity of the 1162 Stereo Power Amplifier.

### **40 Years Experience**

Boulder's 40 years of experience in amplifier design is evident in every aspect of the Boulder 1162.

You can rest easy knowing that your 1162 Stereo Power Amplifier will last a lifetime because we are able to have complete and total control of the design, build and assembly processes.

We encourage you to go listen for yourself. Ask your nearest authorized Boulder dealer or distributor if they have an 1162 Stereo Power Amplifier that they can audition for you!





## **Technical Specifications**

Continuous Power, 8 Ohms	300W
Peak Power, 8 Ohms	450W
Peak Power, 4 Ohms	900W
Peak Power, 2 Ohms	1000W
THD, 8 Ohms 300W	0.002%, 20kHz: 0.01%
THD, 4 Ohms 300W	0.002%, 20kHz: 0.01%
THD, 2 Ohms 300W	0.003%, 20kHz: 0.02%
Equivalent Input Noise (EIN), 20 kHz, BW	$2.2 \mu\mathrm{V}$
Magnitude Response, 20 Hz to 20 kHz	+0.00, -0.04 dB
Frequency Response, -3 dB	0.015 Hz & 150 kHz
Voltage Gain	26 dB
Input Impedance	200k $\Omega$ Balanced
	100k $\Omega$ Unbalanced
Balanced Analog Inputs	Balanced 3 pin XLR
Outputs	.25" (6 mm) Binding Posts
Dower Dequirements (Country Specific configured)	

Power Requirements (Country Specific configured) 100V, 120V, 240V 50-60Hz

Power Consumption

Weight

10W Standby 120W Idle 135Lbs (61.2kg)

All measurments are taken at 120v, Specifications are subject to change without notice or obligation

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