

**T**HE 420 STEREO POWER AMPLIFIER IS A TWO-CHANNEL POWER AMPLIFIER for use in professional and commercial audio systems. The 420 may be operated as a two channel amplifier with 20 watts (RMS) per channel, or as a single channel amplifier capable of 40 watts (RMS) output (bridged-mono mode). The 420 is intended for use in powering near-field monitors, small reference speakers used for radio or audio for video reference, small paging speakers, multiple pairs of headphones, or as a general purpose line driver/distribution amplifier.

The 420 is easy to install and simple to operate as well. When used as a stereo amplifier, a single ganged potentiometer controls the level of both channels. As a 2-channel amp there's an independent level control for each channel. In conjunction with the level controls each channel has a bright red LED to indicate the onset of clipping.

A front panel MODE switch mono sums (mixes) the two inputs. This feature is handy for broadcast and recording engineers who wish to check the mono compatibility of their signals. Commercial sound engineers can use this feature to mix paging signals or paging and music signals.

In recording studios and other similar applications, the 420 makes an ideal headphone amplifier. You can drive one pair of phones from the front panel jack, or many pairs from the rear panel terminals. In fact, the 420 will drive multiple professional headphone sets such as the AKG K-240 to 122 dB SPL!

While the 420 is compact (1 rack space) and low cost, one should not overlook its impressive performance data. Total harmonic distortion (THD) is less than .04% at 1 watt output (see the back of this page for complete specifications). The 420 is truly a professional amplifier—clean, crisp sound reproduction and total freedom from noise. As an added feature, the 420's relatively low stray field emissions allow it to be racked next to a wide variety of audio and video equipment without adversely affecting the equipment's performance.

As with all Symetrix products the documentation accompanying the 420 is second to none. This means you'll be able to install and begin using the product in no time at all. Our mean time between failure statistics are among the best in our industry, but should you require applications assistance or repair you're backed up by a worldwide network of Symetrix distributors and dealers. •

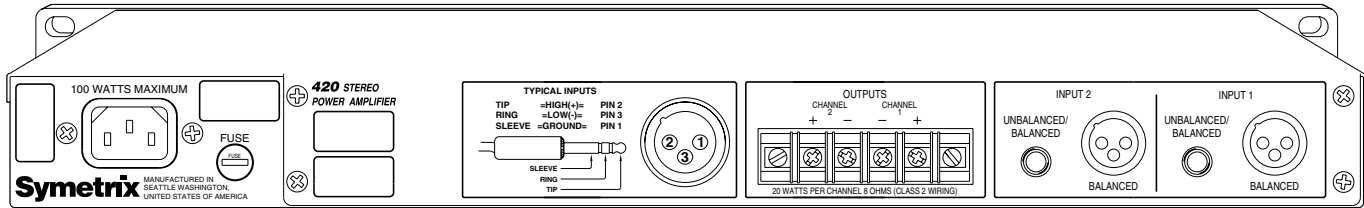
**APPLICATIONS**

- Recording and broadcast studio near field monitor amp
- Video suite audio monitor amplifier
- Audio and video remote truck monitor amp
- Small paging system power amplifier
- Background music amplifier
- Recording and broadcast headphone system amp
- General purpose high level line driver

**FEATURES**

- Compact (uses only 1 rack space)
- 20 watts/channel (stereo)
- 40 watts (mono bridged)
- Mono mix mode
- Front panel headphone jack
- Front panel output mute switch

**420**



## SPECIFICATIONS

Specifications subject to change without notice.

<b>Input/Output</b>	
Inputs	XLR-Female Paralleled with TRS ¼" jacks 10 kilohms Line-Level Balanced Bridging Balanced CMRR greater than 55 dB @ 1 kHz
Outputs	Two, 4 Ohms minimum impedance, #6 screw terminals
Maximum Input Level	+21 dBu
Maximum Output (stereo/2-channel)	20 watts RMS, per channel, into a 4- or 8-Ohm load
Maximum Output (mono bridged)	40 watts RMS into an 8-Ohm load
Minimum Load	4 Ohms, stereo mode; 8 Ohms, monobridged mode
Headphone Output	100-Ohm source impedance, 19V open circuit with speakers off

<b>Physical</b>	
Size (hwd)	1.72 x 19 x 7.25 inches, 4.37 x 48.26 x 18.415 centimeters
Weight	7.6 lbs (3.5kg) net, 10 lbs (4.6 kg) shipping
<b>Electrical</b>	
Power Requirements	120V nominal, 108 to 132V AC, 60 Hz, 100 watts

<b>Performance Data</b> (measured at 120V AC line voltage)	
Frequency Response	20 Hz to 20 kHz (+0, -1 dB)
Crosstalk	>60 dB (22 kHz bandwidth)
Sensitivity	0 dBu for 20 watts into an 8-Ohm load
Maximum Gain	27 dB
Signal to Noise	>95 dB
Typical Distortion	<0.04%, @ 1 kHz, 1 watt into 8 Ohms
THD+Noise	<0.2%, 20 Hz to 20 kHz, @ 20 watts into 8 Ohms
Clip Indicators	One per channel

## 420 ARCHITECTS AND ENGINEERS SPECIFICATIONS

The power amplifier shall be a compact, two input, two output, high performance, power amplifier. It shall occupy a single rack space. (1U)

The unit shall be capable of delivering 20 watts per channel into a minimum load of 4 Ohms. The unit shall also have a mono-bridge mode which delivers 40 watts into a minimum load of 8 Ohms. The inputs shall be active balanced bridging designs terminated with 3-pin XLR (AES/IEC standard wiring), and ¼" TRS female. The input circuitry shall incorporate RFI filters. The balanced inputs shall accommodate +24 dBu signals without distortion. Screw terminals shall be provided for power amplifier outputs.

THD shall not be greater than 0.04%, @ 1 kHz, @ 1 watt in 8 Ohms. Signal to noise ratio shall be greater than 95 dB. Frequency response shall be 20 Hz to 20 kHz (+0 dB, -1 dB).

The power amplifier shall be protected from output short-circuits. A front panel Dual Tracking switch shall allow the Channel 1 gain control to simultaneously control the level of both channels. There shall be a ¼" tip-ring-sleeve jack mounted on the front panel for stereo headphone output. A front panel switch shall be provided to mute the rear panel output connections. Another front panel switch shall be provided to sum the two input signals and route them to the two gain controls.

Independent clipping indicators shall be provided for each output channel.

The amplifier shall be capable of operating by means of its own built-in power supply connected to 120V nominal AC (108 to 132V) 60 Hz.

The unit shall be a Symetrix Incorporated model 420 Stereo Amplifier.

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