

PRODUCT
SX1800

DESCRIPTION
POWER AMPLIFIER

SERIES
SX

CATEGORY
AMPLIFIERS



GENERAL DESCRIPTION

The Samson SX1800 stereo power amplifier has been designed to provide robust, clean output with low distortion and wide dynamic range, along with the dependability demanded by the most professional audio engineers and installers.

The convenient 2 rack-space design is compact, and yet there's plenty of power available 2 x 400 Watts at 8Ω, 2 x 600 Watts at 4Ω over the full frequency spectrum, from 10 Hz to 55 kHz.

For mono applications, a Bridged mode links both channels of the amplifiers, thus providing even more power, with power ratings of 1800 watts into a 4 Ohm load.

Input connections are made via Combination connectors allowing for both balanced XLR and balanced 1/4" TRS connections. For the outputs, the SX series amplifiers provide standard 5-way binding posts, as well as a Speakon™ connectors. Front-panel controls and displays include a power switch with LED indicator, as well as independent left and right channel input level controls. To help you set the correct operating levels, the SX1800 include front panel Signal, Peak and Protection LED indicators.

Like all serious power amplifiers, the SX1800's internal electronics are based around a serious power-core, with over-sized toroidal transformer and large extruded heat sinks. To keep the SX1800 running cool, the design employs twin internal wind tunnels with forced-air cooling via two temperature-sensitive, variable speed fans, which greatly reduces the chance

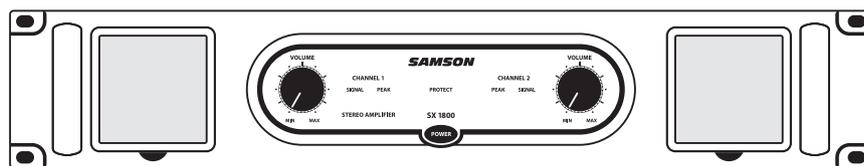
of thermal and overheating problems. Multi-stage protection for power-up, over-heating, over-current, short circuit, low output impedance and DC voltage, assures high reliability under the most demanding situations.

The SX1800 is road tough with its all steel chassis, 19-inch rack mount design and convenient carry handles, the SX1800 is ready for a life of travel, or to make it's home in a fixed installation.

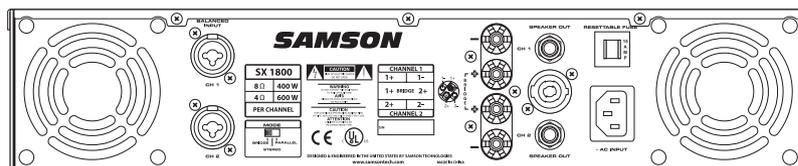
FEATURES

- > Power to spare - SX1800 2 x 400 Watts at 8Ω, 2 x 600 Watts at 4Ω.
- > For mono applications, a Bridged mode links both channels of the amplifiers, thus providing even more power, with a power rating of 1800 watts into a 4 Ohm load.
- > Clean, crisp sound - Impressive audio specifications such as 0.01% THD, signal to noise of 102 dB, crosstalk of 80 dB, and frequency response of 10 Hz to 55 kHz guarantee ultra-clean sound quality.
- > Independent input level controls for each channel allow precision adjustments.
- > LED signal indicators for each channel continuously display power output levels and allow you to correct for overloading (clipping) conditions.
- > Unique stable bipolar circuit design that continuously keeps DC output during idling at or near zero volts (thus keeping idle speakers at their zero point). This serves to minimize heat overload problems by effectively preventing the SX1800 from applying power when unnecessary.

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FRONT PANEL



BACK PANEL

PRODUCT SPECIFICATION SHEET

SERIES
SX

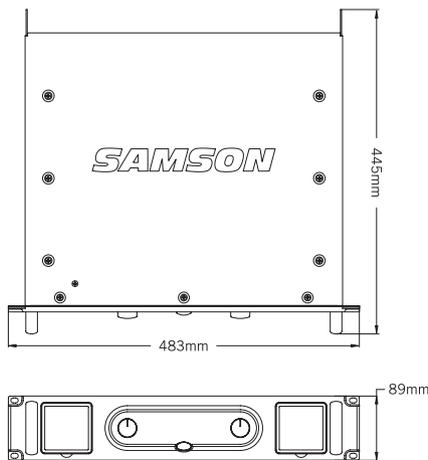
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FEATURES (continued)

- > Forced air cooling via two temperature-sensitive, variable speed fans provides reliable performance without thermal and overheating problems.
- > Protection relay circuitry (with dedicated LEDs for each channel) that guards against overheating or faulty wiring conditions and also prevents “thumps” when powering on or off. This means that you can use the SX1800 with a single power strip into which a mixer or other audio devices are connected, without danger of damage to connected speakers.
- > Combination input connectors for each channel accommodate both balanced XLR or balanced 1/4-inch TRS plugs.
- > Output connections are made via 5-way binding posts along with a Speakon™ connector.
- > Toroidal transformer power supply for high current and low profile.
- > User-resettable circuit breaker for fast, easy startup following a power supply overload.
- > The SX1800 can be mounted in any standard 19" rack (taking just two rack spaces), making it easy to integrate the amp into any fixed or traveling PA rig.
- > Rugged construction (an all-steel chassis with a cool gray finish and a lightweight anodized aluminum heat sink) makes the SX1800 eminently roadworthy.
- > Extended three-year warranty.



ARCHITECT'S & ENGINEER'S SPECIFICATIONS

The Samson SX1800 shall be a 2 rack space, 2 channel power amplifier. It shall deliver 2 x 400 watts into an 8 Ohm load or 2 x 600 watts into a 4 Ohm load. It shall have front panel volume controls, power switch, signal present and peak indicators. The rear panel shall have 1/4 inch and XLR balanced inputs on combi connectors. The outputs shall be provided on Speakon™ connectors and 5 way binding posts. The rear panel shall have a mode of operation switch to switch between stereo, bridged mono, and parallel modes of operation. The amplifiers shall be fan cooled. The amplifier shall receive AC power through a standard IEC connector.

SX1800 SPECIFICATIONS

Rated Output Power

Stereo both channels driven

8 Ohms..... 400 Watts
4 Ohms..... 600 Watts

Bridged mono

4 Ohms..... 1800 Watts

Signal to Noise Ratio (20Hz-20k)..... 102dB

Distortion (SMPTE-IM) 0.01%

Input sensitivity @8 Ohms 1.24V(4dBu)

Voltage Gain 33dB

Output Circuitry Class AB

Current Consumption (115VAC)

@1/8 rated power 4 Ohms 7.2A

@1/3 rated power 4 Ohms 12A

@rated power 4 Ohms, max. 19.5A

Distortion (typical @4 Ohms)

20Hz-20kHz,10dB

below rated power..... 0.01%

1kHz,rated power..... 0.1%

Frequency Response @8 Ohms, 1Watt... 0/-0.5dB:20Hz-20kHz,0/-3dB:5Hz-60kHz

Damping Factor (400Hz)..... 280

Input Impedance 15k Ohm Unbalanced, 30k Ohm Balanced

Input Clipping 10Vrms(22dBu)

Cooling Continuously variable speed, fan forced air

Connectors (each channel)

Input Active balanced combo and 1/4"(6.3mm)TRS

Output 5-way Binding post,1/4" Phone and Speakon™

Controls AC power switch, Channel 1 and 2 volume

Indicators Power on(blue), Protection (amber), Signal(green) for each Ch., Peak(red) for each Ch.

Protection Short circuit,Thermal,Current limit,DC offset,Current inrush,RF protection, Turn on/Turn off muting

Power Requirements 100, 115/230, 240VAC, 50/60Hz

Dimensions (W x H x D) 19" x 3.5" x 18" (483mm x 89mm x 445mm) rack mounting to rear support

Net Weight 37lb.(16.5kg)