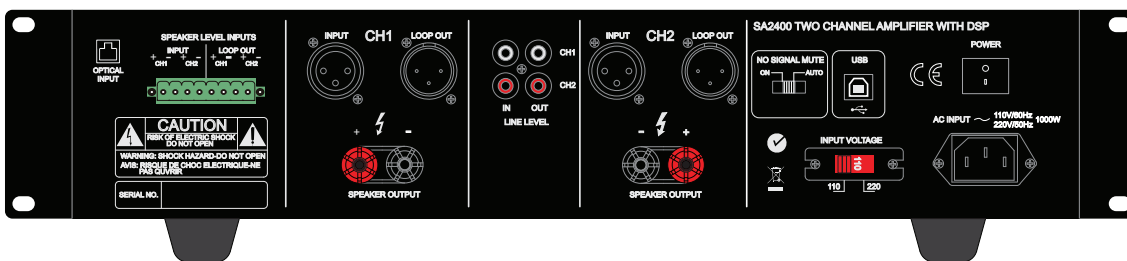


## SA2400 2-CHANNEL, HIGH - CURRENT AMPLIFIER WITH DSP



Front view



Rear view

The Stealth Acoustics SA2400 is high-current two-channel amplifier with powerful built-in digital signal processing functions suitable as a low distortion power source for Stealth Acoustics speakers, Stealth subwoofers, or other un-powered speakers and subwoofers. Intended for distributed audio, fixed installations, or home theater applications, the SA2400 mounts using the supplied removable rack ears in a standard 19" (482 mm) equipment rack requiring only two RU spaces (3-1/2" - 89 mm), or may stack with other free-standing components. The SA2400 delivers a solid 310 watts per-channel into an 8Ω load and 450 watts per-channel into 4Ω.

The SA2400's internal DSP functions may be programmed for each channel independently or together and

include 11 bands of fully-parametric EQ, variable High and Low Pass filters with selectable slopes, fully-programmable limiter stage and delay functions. All parameters may be programmed using front panel controls or via a USB connected computer utilizing Stealth Signal Management System software (SSMS).

For maximum flexibility integrating into any audio system, the SA2400 includes RCA unbalanced line level, balanced XLR line level, and phoenix speaker level inputs for each channel, all with "pass-through" output connectors. The speaker level input/pass-through connections allow the SA2400 to feed directly from full-range speaker lines, anywhere in the system. A stereo optical input is provided for connecting digital sources to the

amplifier. Inputs may be mapped to either channel and may be "mono-summed" via programming. The SA2400 amplifier output connections are via 5-way binding posts designed to accept heavy gauge speaker wires.

A selectable automatic turn-on feature activates the amplifier only when audio signals are present. Quiet 8-stage cooling fans automatically engage as required. The front panel includes direct master volume and menu access controls as well as an LCD display window and dual clip indicators. 115VAC and 230VAC input line voltages are easily selectable via a rear panel switch. The Stealth Acoustics SA2400 amplifier is covered by a 2-Year manufacturer's warranty.



## Architectural & Engineering Specifications

The amplifier shall be dual-channel high-current class AB+B device with analog power supply and built-in DSP functions designed as a low distortion power source for Stealth Acoustics speakers, Stealth subwoofers, or other un-powered speakers and subwoofers. The amplifier shall provide a minimum of 310 watts per channel into an 8Ω load and 450 watts per channel into a 4Ω load with both channels driven. The amplifier shall have a switch selectable AC mains power input supporting 115VAC 60Hz and 230VAC 50Hz voltages.

The amplifier shall have internal DSP functions programmable for each channel independently or together and shall provide 11 bands of fully-parametric EQ (Frequency, Gain, and Bandwidth), variable High and Low Pass filters with four selectable filter slopes, fully-programmable limiter stage including knee parameter, and 100Ms of delay. All DSP functions shall be programmable using front panel controls or via a USB connected computer utilizing Stealth Signal Management System software (SSMS).

The amplifier shall feature a full complement of input and output connectors. Inputs shall include RCA unbalanced line level, XLR balanced line level, and phoenix speaker level connectors, all with pass-through output capability. The amplifier shall have an optical stereo digital audio input (TOS). Any input connection may be routed to any input channel via programming or "mono-summed" for routing to either or both channels. The amplifier output connections shall be via 5-way binding posts designed to accept heavy gauge speaker wires.

The amplifier shall have a switch-selectable automatic turn-on feature which activates the amplifier only when audio signals are present. The amplifier shall also feature internal 8-stage cooling fans that automatically engage as required. The front panel controls shall include direct master volume and menu access button controls as well as a 2-line LCD display window and dual clip indicators. The front panel lighted graphics and LCD display shall have 3 levels of dimming.

The unit shall weigh 29.5 lbs (13.4 kg) and be supplied with removable rack ears. The unit shall measure 19" (482 mm) wide with rack rails – 17" (432 mm) wide without rails, 3-1/2" (89 mm) high and 15-3/4" (400 mm) deep.

The amplifier shall be the Stealth Acoustics model SA2400 and shall be covered by a 2-year manufacturer's warranty.

## Digital Signal Processing Features

- **Each channel independently programmable**
- **11 Bands fully-parametric EQ** (Frequency, Gain and Bandwidth)
- **Full Limiter stage** (programmable Threshold, Attack, Release, Ratio and Knee parameters)
- **Programmable High-pass filter** (20Hz-150Hz with selectable 6db, 12dB, 18dB and 24dB slopes)
- **Programmable Low pass filter** (50Hz-100Hz with selectable 6db, 12dB, 18dB and 24dB slopes)
- **Delay** (100Ms maximum per channel)
- **Phase Reversal**
- **Input signal routing and summing**
- Front panel menu programming or via USB connection using optional free SSMS software

## Product Specifications

### Power Output (per channel – both channels driven)

310 watts @8Ω < 0.05 THD  
450 watts @4Ω < 0.05 THD

### Frequency Response

20Hz-50kHz (+1/-3dB)

### Total Harmonic Distortion

< 0.05 @ 450 watt @4Ω / 1 kHz

### Signal to Noise Ratio

>105 dB / A weighting 20Hz-20kHz

### Analog Input Sensitivity

-1dBV for output of 312.5W / 8Ω

### Maximum Voltage Gain

36 dB / 8Ω

### Crosstalk

>85dB

### System Impedance

8Ω Nominal - 4Ω Minimum

### Full Output Current Draw

1080 watts @115V / 8 Ω (100Hz sine wave - both channels driven)  
1560 watts @115V / 4 Ω (100Hz sine wave - both channels driven)  
Typical audio power current draw is 1/8 to 1/4 Full Output Current Draw, depending on source material / load

### Amplifier / Load Protection

Full short circuit, open circuit, thermal, ultrasonic and RF protection  
On/Off muting with auto volume ramp up on power-up  
DC fault power supply shutdown  
Fixed high-pass filter @18Hz  
Stable into reactive or mismatched loads

### Shipping Weight

38 lbs. (17.2 kg)

## Product Features and Functions

### Flexible Inputs with Pass Through

Phoenix connector speaker level inputs / outputs  
RCA unbalanced line level inputs / outputs  
XLR balanced line level inputs / outputs  
Optical Digital input (stereo TOS - routable, no pass through output)

### Amplifier Output Connectors

5-way binding posts (each channel)

### Front Panel LCD Display

Input level readout  
Programming / parameter display  
Dimming function (3 levels)

### USB Connection

For Computer programming of DSP features via SSMS software

### Auto On / Standby Function

Switch selectable "On" or "Auto"

### Fan Cooled

Automatic – 8 speed stages

### 115V-60Hz and 230V-50Hz Selectable Input Voltages

### Rack Mountable

(2) RU spaces: 3-1/2" (89mm)