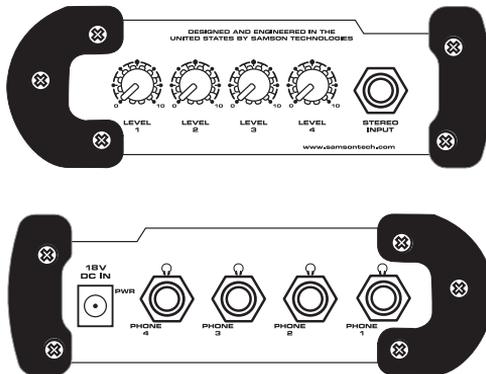


S•amp



4 CHANNEL STEREO HEADPHONE AMP

Owners Manual

SAMSON[®]
A U D I O

Table Of Contents

Introduction and Features	3
Front and Rear Panel Layout	4
Operating the S amp	5-6
Typical Set-Up	6
Headphone Impedance and Sensitivity Ratings	7
Specifications	8

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^A **K-TEAM**
PRODUCTION

S amp Introduction and Features

Introduction

Thank you for purchasing the S amp miniature headphone monitor system from Samson Audio! S amp provides an elegant solution for headphone monitoring, either on stage or in the studio. The S amp is a specially designed headphone amplifier that allows you to control the level balance between four sets of headphones. Providing unusually high power levels and superb audio fidelity, the S amp is compatible with virtually all popular headphone models. And just because this unit is miniature, don't be surprised with its great sound and reliability, thanks to the use of high quality components and solid build construction.

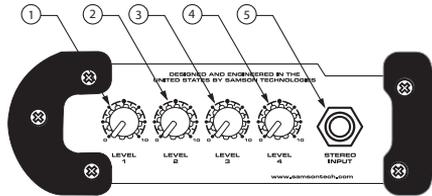
In this manual, you'll find a more detailed description of the features of the S amp, as well as a guided tour through the front and rear panels, step-by-step instructions for using the S amp, a reference chart that gives impedance and sensitivity ratings for a number of popular headphone models, and full specifications. You'll also find a warranty card enclosed—please don't forget to fill it out and mail it so that you can receive online technical support and so we can send you updated information about other Samson products in the future.

S amp Features

- Four channel stereo headphone amplifiers
- Maximum output power on each channel regardless of different headphone impedances
- Four 1/4-inch stereo headphone outputs
- Individual volume control for each headphone output
- Stereo 1/4 inch input connector
- Rugged aluminum extrusion chassis
- Large rubber bumper feet
- 18 Volt AC adapter included
- Three year extended warranty

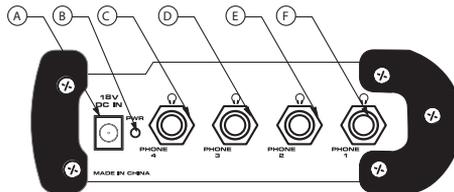
S amp Front and Rear Panel Layout

Front Panel Layout



- 1 **LEVEL 1** - Control knob used to adjust the output level of Headphone 1.
- 2 **LEVEL 2** - Control knob used to adjust the output level of Headphone 2.
- 3 **LEVEL 3** - Control knob used to adjust the output level of Headphone 3.
- 4 **LEVEL 4** - Control knob used to adjust the output level of Headphone 4.
- 5 **STEREO INPUT** - 1/4-inch TRS (TIP/RING/SLEEVE) connector to input main stereo signal.

Rear Panel Layout



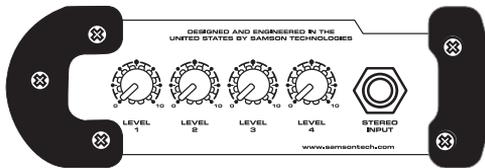
- A **DC POWER INPUT**- Connect the supplied power adapter here.
- B **POWER LED** - Red LED will illuminate when power is on indicating the S amp is ready for operation.
- C **HEADPHONE 1** - 1/4" output for connecting headphone 1.
- D **HEADPHONE 2** - 1/4" output for connecting headphone 2.
- E **HEADPHONE 3** - 1/4" output for connecting headphone 3.
- F **HEADPHONE 4** - 1/4" output for connecting headphone 4.

Operating the S amp

The basic procedure for setting up and using your S amp is simple and takes only a few minutes. Remove all packing materials (save them in case of need for future service) and check to make sure that you remove the supplied AC power adapter.

IMPORTANT NOTE: Before you install the headgear, be sure to double check that the MIC and STEREO level controls are turned to the all the way down (fully counter clockwise position). The S amp is small, but powerful. It can generate loud signal levels into the connected headphone. We recommend that you exercise extreme caution and care for your ears. They're your most important tool, and instrument. Always start with the level controls all the way off and slowly raise the signal to a comfortable listening level.

- Connect the output from the device you want monitored to the STEREO INPUT jacks on the S amp front panel.
- Set the controls to the following positions:



- Turn the four headphone channel LEVEL knobs to their minimum (fully counter-clockwise) setting.
- Plug the S amp power adapter into a wall outlet.
- Apply a signal, like the output of a mixer playing a CD, to the S amp's STEREO INPUT jack.
- Connect a set of headphones to Channel 1 and slowly turn the channel's LEVEL knob clockwise until you hear the desired level.

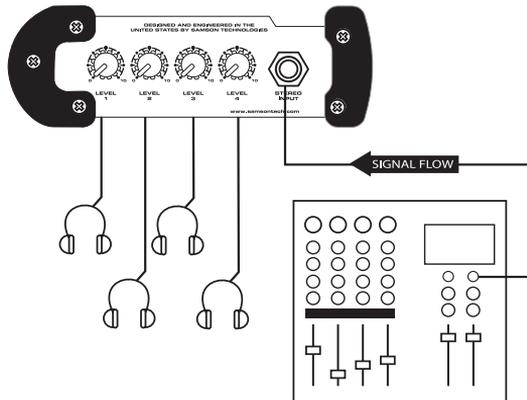
Operating the S amp

Repeat the previous step for all Channels that have headphones connected, making sure to start the LEVEL knob completely counterclockwise and then slowly raising it until the desired level is achieved. If you have connected different models of headphones to the various Channel Headphone jacks, you may find that some require more gain than others to achieve the same volume. This kind of disparity will occur if the various headphones have different impedances. The lower the impedance, the louder the headphone will sound compared to another, higher impedance headphone at the same VOLUME setting. Another factor affecting headphone loudness is called sensitivity. This is generally measured by determining the decibel (dB) level generated by 1 mW of power input. The higher the dB rating, the louder the headphone. See the Reference chart on page 5 of this manual for more details.

Typical Set-up

The diagram below shows a typical set-up for a small band using the S amp headphone amplifier with a stereo mixers for a sophisticated personal headphone monitoring system.

Typical Hook-up for four headphones with independent level control



Headphone Impedance and Sensitivity Ratings

Virtually all headphones that terminate in a stereo 1/4" plug can be used with the S amp Headphone Amplifier. This chart provides a partial listing of some of the more popular models, along with their impedance and sensitivity ratings. As described on page 4 of this manual, headphones with lower impedances (or higher sensitivity) will sound louder as compared to other, higher impedance (or lower sensitivity) headphones at the same channel Volume setting. Samson Technologies has no connection with any of these manufacturers, nor do we endorse any particular models for use with the S amp. This is simply a reference listing for your convenience. For more information about any of these headphones, contact the manufacturer directly.

SAMSON HEADPHONES

Model	Impedance	Sensitivity /mW
PH60	32 ohm	100 dB
RH100	64 ohm	106 dB
RH300	32 ohm	106 dB
RH600	40 ohm	106 dB
CH70	32 ohm	103 dB
CH700	64 ohm	108 dB

OTHER MANUFACTURER'S HEADPHONES

Manufacturer	Model	Impedance	Sensitivity /mW
AKG	K-141	600 ohm	98 dB
AKG	K-240	600 ohm	88 dB
Beyer	DT-150	250 ohm	114 dB
Beyer	DT-801	250 ohm	114 dB
Fostex	T-10	50 ohm	91 dB
Fostex	T-20	50 ohm	96 dB
Fostex	T-40	50 ohm	98 dB
Sennheiser	HD-450 (original)	70 ohm	94 dB
Sennheiser	HD-450 Series II	60 ohm	94 dB
Sony	MDR-7502	45 ohm	100 dB
Sony	MDR-7504	45 ohm	103 dB
Sony	MDR-7506	63 ohm	106 dB

Samson Specifications

Input Impedance:	100K Ω unbalanced
Max Input Level:	+19 dBV
Input Connectors:	Stereo 1/4" TRS phone
Outputs:	(4) 1/4" Stereo 1/4"
Output Impedance:	100 Ω each output
Max Gain:	20 dB/Channel
S/N Ratio:	>90 dB
THD:	<.005%
IMD (SMPTE)	<.005%
Power:	18 VDC adapter
Dimensions:	5.65" L x 4.13" W x 2" H (144mm L x 105mm W x 51mm H)
Weight:	16.5 oz., 419 gm.

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