

Studiophile SP-5B

Users Manual

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Introduction

Thank you for choosing the SP-5B Studiophile Series pair of bi-amplified powered near field reference monitor speakers. M-Audio is well known for their digital audio interface technology, digital converters, audio pre amps and mixers. Now, after long research and development, the Studiophile SP-5B is born to change the concept of near field reference monitoring.

The SP-5B was designed and tested by many audio engineers to meet your needs in a studio-monitoring environment. It is focused on functionality - to deliver pure original sound without any additional enhancement. The SP-5B monitor speakers need no other power amplification - they accept a line level signal from a variety of sources.

The Studiophile SP-5B is designed to overcome all the limitations of conventional near field reference monitors within the digital audio environment. This system delivers a wide range of frequency response by employing two extraordinary drivers and unique crossover technology licensed by M-Audio. It boasts a stable and balanced low-mid frequency response along with a defined MF and HF response as well. Both drivers are magnetically shielded for DTMP users (Desk Top Music Production).

From professional users in commercial studios to home studio owners, the Studiophile SP-5B is a true solution for near field studio monitoring in its own class.

What's in the Box?

Your Studiophile SP-5B box contains:

- 2 (two) SP-5B speakers.
- This manual.

Studiophile SP-5B Features

1. Woofer

The woofer unit is 5 1/4 inches in diameter with a magnetically shielded mineral-filled polypropylene cone, with a high temperature voice coil and damped rubber surround. It is designed to deliver balanced mid and low frequency response. Polypropylene is used to react against the input signal accurately and to deliver even minimal input precisely while minimizing distortion.

2. Tweeter

By employing a specially developed 1" silk dome with magnetic shielding, the tweeter can deliver distortion-free original sound and offer extremely natural sound. It minimizes reaction time by using fabric silk for excellent delivery, and also minimizes resonance by adapting a unique Internal Damping Technology.

3. Sub-Frequency Port

The hole in the rear panel is called a Sub-Frequency Port which discharges extreme low frequencies under 30 Hz. The SP-5B is designed to take advantage of this port to generate extreme low frequencies.

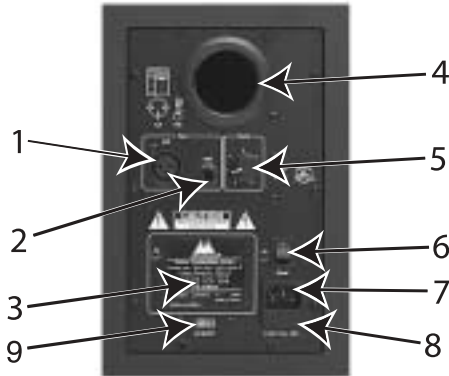
4. Enclosure

The enclosure has an important role just as the other components. The SP-5B's enclosure is designed to endure impact from inside under extreme conditions. It employs high-density special MDF and unique interior reinforcement to provide more stable performance.

5. Network & Power Amplifiers

The Network & Power Amplifiers for the SP-5B are specially designed for its woofer and tweeter. The Network properly distributes low, mid, and high frequency to units in order to reduce loss of sound and distortion, thus achieving a natural balance of sound.

In order to generate ultra crisp, powerful sound quality, there are two separate power amplifiers inside the SP-5B to drive the Woofer and Tweeter drivers separately as a high-end Bi-Amp structure. The power delivered to the woofer driver at a rated distortion is 42W and 36W is delivered to the Tweeter.



Rear Panel:

1. **XLR INPUT:** This jack accepts XLR input connections, with either balanced or unbalanced wiring. The signal of the XLR INPUT is summed together with the TRS INPUT through a balanced input amplifier. So, either may be used as an input or mixed together. Input specifications apply to both inputs. The INPUT CONNECTIONS wiring chart of an XLR connector is as follows:

INPUT SIGNAL	XLR CONNECTIONS
+	PIN 2
-	PIN 3
Shield	PIN 1

2. **TRS INPUT:** This jack accepts a TRS connector, either balanced or unbalanced wiring. For balanced wiring, a 3-conductor TRS plug is necessary. The input connections of the TRS connector are wired as follows:

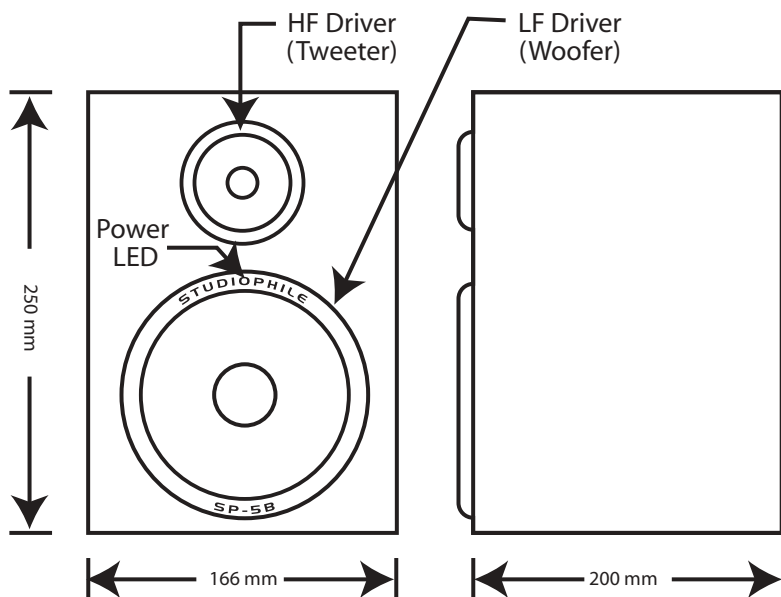
INPUT SIGNAL	TRS CONNECTIONS
+	TIP
-	RING
Shield	Sleeve

Unbalanced wiring works with either a 2 or 3-conductor TRS connector. A 2-conductor TRS plug automatically grounds the minus signal input, whereas a 3-conductor TRS plug wired unbalanced provides the option of leaving the minus open or grounded. We recommended that you ground the unused input.

The TRS INPUT is summed together with an XLR INPUT through a balanced input amplifier. So, either may be used as an input or mixed together. Input specifications apply to both inputs.

3. **PRODUCT LABEL:** This label contains the model and serial number information.
4. **VENT PORT:** This port aids in reproduction of very low frequencies by discharging frequencies below 30 Hz..
5. **VOLUME CONTROL:** Use the Volume Control to set the output sound pressure from the SP-5B to proper levels as required.
6. **POWER SWITCH:** This switch turns the monitor on and off. The On position is indicated by the marking “I”.
7. **POWER RECEPTACLE:** For plugging in a detachable 3-circuit line cord.
8. **FUSE HOLDER:** For the external main fuse.
9. **VOLTAGE-SELECT SWITCH:** Provides 2 selections - 115VAC and 230VAC, and should be set to match the “house current” (receptacle) voltage of the country/location in which the speaker is used. The 115V setting is correct for the USA and the 230V setting correct for most of the UK and Europe.

Front Panel and Side View:



1. The front panel houses the Power LED which indicates whether the speakers (amplifier) power is on or off.

Installation

For optimal performance of the SP-5B, please read the following thoroughly and carefully prior to installation.

Precautions

Handling: Please do not grab the speaker driver units: the SP-5B set is packaged in the box tightly, so your attention is required when taking the speakers out of the box. To avoid possible damage to the speaker units, hold both sides of the speaker in order to pull them out of the box. The speaker units should not be touched in order to avoid damage even after they are out of the box.

Connections: Connect the XLR balanced or TRS balanced / unbalanced input of each SP-5B to the corresponding pre-amp, computer or game console outputs. We recommend that you use high-quality balanced or unbalanced cables for input connections. Also, turn off the power of the SP-5B and turn the Volume Control of the SP-5B down to a minimum before making the necessary connections.

Correct Power Operation: Since the SP-5B contains its own amplifier, it must be connected to a power outlet using the detachable AC cable provided. Before connecting power, please make sure that the Voltage-Select Switch, located on the the speakers rear panel is set to the appropriate position, as described in the rear-panel features list appearing earlier in this manual.

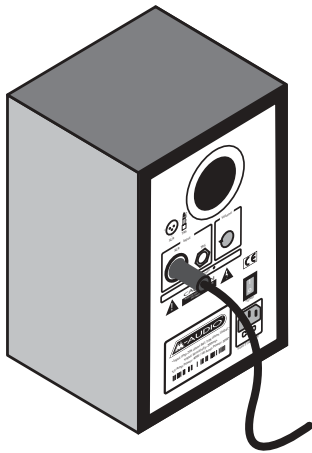
Note: - WARNING! - Use of improper voltage/selector-switch combinations may result in hazardous conditions and/or damage to speaker components not covered by speaker warranty.

XLR Balanced Connection

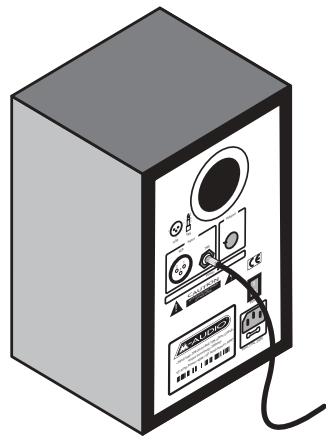
Assure that the power switch of the SP-5B is turned off and that the Volume Control of the SP-5B is turned down to a minimum. Connect the male end of an XLR balanced cable to the balanced input of the SP-5B (refer to the following diagram for balanced connection).

TRS Balanced/Unbalanced Connection

Assure that the power switch of the SP-5B is turned to off and that the Volume Control of the SP-5B is turned down to a minimum. Connect the male end of a TRS balanced or unbalanced cable to the TRS input of the SP-5B (refer to the following diagram for TRS connection).



balanced connection

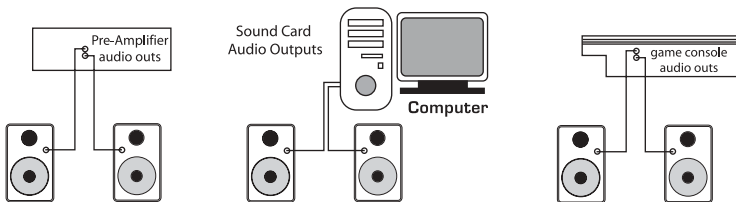


TRS Balanced or Unbalanced Connection

Connecting to the Corresponding Pre-Amplifier, Computer or Game Console Outputs

Before connecting, make sure its power is turned off.

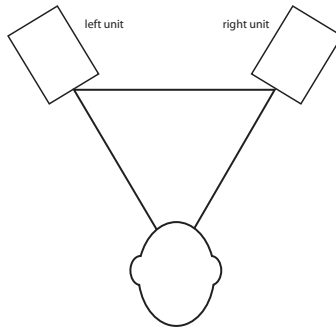
Plug the XLR balanced, TRS balanced or unbalanced cable to the corresponding output connectors of a pre-amplifier, computer or game console.



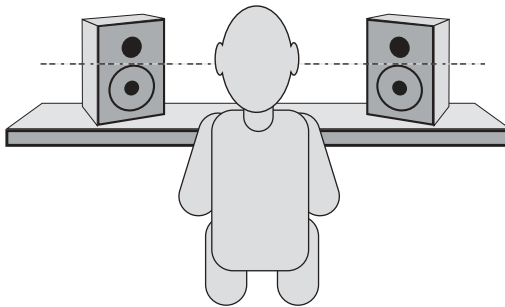
Placing the SP-5Bs

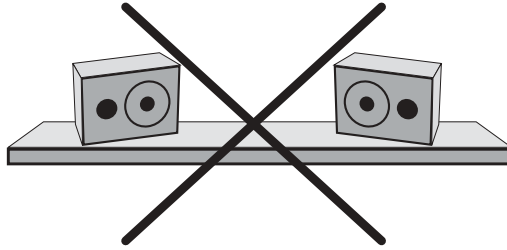
Placing the speakers is one of the most important procedures in order to monitor sound accurately. To monitor with the SP-5Bs at their maximum capability, an appropriate listening environment and correct placement is required. Please, refer to the following in order to place the SP-5Bs correctly.

1. Basically, the two units and the listener should align to form a regular triangle. Refer to the following diagram.



2. The height of the units, more precisely, the top of the woofer, should come up to where your ears are in a normal listening environment. Refer to the following diagram.





3. Place the SP-5Bs vertically. Placing the SP-5Bs horizontally is not recommended.

Remarks: DO NOT place any obstacles that may block the flow of air in front or between the SP-5Bs (which are a medium of sound, or create reflected sound, especially materials of high reflective tendencies including glass, mirror or metal). PLACE THOSE MATERIALS AWAY FROM THE PATH OF THE SOUND FROM THE SP-5Bs.

NOTE: The tweeter on your SP-5B has the unique quality of being movable. This feature should only be used in extreme cases where normal placement is not possible. Putting pressure on the outer ring of the tweeter will move it to a more advantageous and directional position, if needed.

Appendix A - Technical Specs

Type: 2-Way Near Field

LF Driver: 5 1/4" magnetically-shield mineral-filled polypropylene curved cone with high temperature voice coil and damped rubber surround

HF Driver: 1" magnetically-shield natural Silk Dome

Frequency Response: 33Hz - 22kHz

Crossover Frequency: 2.7kHz

LF Amplifier Power: 42W

HF Amplifier Power: 33W

S/N Ratio: > 100dB below full output, 20kHz Bandwidth

Input Connectors: 1 XLR Balanced Input & 1 TRS Balanced/ Unbalanced Input

Polarity: Positive signal at + input produces outward LF cone displacement

Input Impedance: 20K ohms balanced, 10K ohms unbalanced

Input Sensitivity: 200 mV input produces full output with Input Sensitivity control at maximum

Protection: RF interference, output current limiting, over temperature, turn-on/turn-off transient, subsonic filter, external main fuse

Indicator: Power ON/OFF indicator on rear panel

Power Requirements: Dual-voltage (selectable by rear-panel switch) for either 115V/~60Hz, 230V/~50Hz; powered via detachable 3-circuit line cord

Cabinet: vinyl-laminated MDF

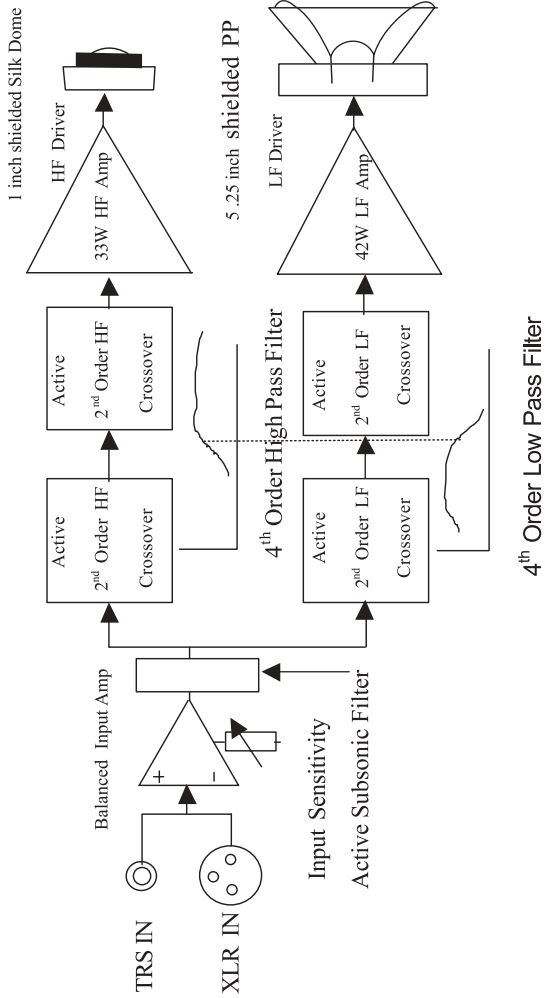
Dimension: 250 mm (H) x 166 mm (W) x 200 mm (D)

Weight: 5.0 kg/unit (without packing)

Remarks: Above specifications are subject to change without notice

Appendix B - Block Diagram

Block Diagram



One Year Warranty

MIDIMAN warrants that this product is free of defects in materials and workmanship under normal use for a period of one year from purchase date, so long as the product is: owned by the original purchaser; the original purchaser has proof of purchase from an authorized MIDIMAN dealer; and the purchaser has registered his/her ownership of the product by sending in the completed warranty card.

This warranty explicitly excludes any included 'external non-integrated power supplies and cables which may become defective as a result of normal wear and tear.

In the event that MIDIMAN receives written notice of defects in materials or workmanship from such an original purchaser, MIDIMAN will either replace the product, repair the product, or refund the purchase price at its option. In the event any repair is required, shipment to and from MIDIMAN and a nominal handling charge shall be born by the purchaser. In the event that repair is required, a Return Authorization number must be obtained from MIDIMAN. After this number is obtained, the unit should be shipped back to MIDIMAN in a protective package with a description of the problem and the Return Authorization clearly written on the package.

In the event that MIDIMAN determines that the product requires repair because of user misuse or regular wear, it will assess a fair repair or replacement fee. The customer will have the option to pay this fee and have the unit repaired and returned, or not pay this fee and have the unit returned unrepared.

The remedy for breach of this limited warranty shall not include any other damages. MIDIMAN will not be liable for consequential, special, indirect, or similar damages or claims including loss of profit or any other commercial damage, even if its agents have been advised of the possibility of such damages, and in no event will MIDIMAN's liability for any damages to the purchaser or any other person exceed the price paid for the product, regardless of any form of the claim. MIDIMAN specifically disclaims all other warranties, expressed or implied. Specifically, MIDIMAN makes no warranty that the product is fit for any particular purpose.

This warranty shall be construed, interpreted, and governed by the laws of the state of California. If any provision of this warranty is found void, invalid or unenforceable, it will not affect the validity of the balance of the warranty, which shall remain valid and enforceable according to its terms. In the event any remedy hereunder is determined to have failed of its essential purpose, all limitations of liability and exclusion of damages set forth herein shall remain in full force and effect.