

M-AUDIO®

STUDIOPHILE DX4™
Professional Desktop Audio Monitoring System

USER GUIDE

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Introduction

Thank you for choosing the Studiophile DX4 professional desktop audio monitoring system. Top recording engineers and producers in studios around the world use M-Audio's Studiophile Series monitors. With the Studiophile DX4s, you can enjoy the same professional standard of audio quality right on your desktop.

The Studiophile DX4 has been designed and tested by veteran audio engineers to meet your needs in a desktop audio monitoring environment. It is focused on the functional goal of delivering pure, original sound without any additional coloration. The DX4 monitor is self-powered, directly accepting a line level signal from a variety of sources.

The Studiophile DX4 is designed to overcome all the limitations of conventional desktop monitors within the digital audio environment. The DX4s match a custom tuned cabinet design, optimized drivers and an advanced crossover technology with plenty of power, insuring the highest-fidelity sound available from audio monitors of their size. And M-Audio's proprietary OptImage wave guide technology assures improved and defined stereo imaging. Studiophile DX4s bring your computer-based music, games and DVDs to life.

What's in the Box?

Your Studiophile DX4 box contains:

- Two DX4 speakers (Left and Right)
- One speaker wire
- One 1/8 inch mini jack to RCA audio cable
- One detachable AC power cord
- User Manual
- Actual test results of the DX4s you purchased

Studiophile DX4 Features

Woofers - The woofer unit is 4 inches in diameter with a magnetically shielded, curved cone, high-temperature voice coil and closed cell foam damping. It is designed to deliver balanced mid- and low- frequency response. The design is used to react against the input signals accurately and to deliver even minimal input precisely while minimizing distortion.

Tweeters - By employing a specially developed 1-inch mylar dome with magnetic shielding, the tweeter can deliver distortion-free original sound and offer an extremely natural response. It minimizes reaction time by using the specially shaped mylar dome for excellent delivery, and also minimizes resonance by adapting a unique internal damping technology. Also, incorporated into the tweeter is the OptImage wave guide technology that improves stereo imaging.

Sub-Frequency Port - The hole in the rear panel is called a Sub-Frequency Port and is designed to discharge extreme low frequencies.

Enclosure - Just as the other components do, the DX4's enclosure plays an important role. In order to provide more stable performance, the DX4's enclosure employs a special high-density MDF and unique interior reinforcement designed to absorb vibration and impact generated under extreme conditions.

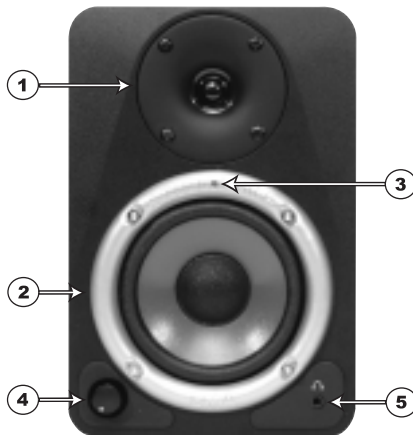
Network and Power Amplifiers - The active equalization, crossover networks and power amplifiers for the DX4 are specially designed for this woofer and tweeter. The network properly distributes low, mid, and high frequencies to the components in order to reduce distortion and loss of sound, thus achieving a naturally balanced sound.

Mid-Boost Control - The back panel Mid-Boost control on the DX4s gives you compensation for room EQs. It offers a great deal of control over the sound and presence of the DX4 and make the DX4s very versatile for different spaces.

Front and Rear Panel Features

Front

Note: This image shows the Front panel of the Left Speaker. While this panel contains the LF and HF Drivers (Woofer and Tweeter), Power LED, Volume Control and Headphone Output Jack, the Right Speaker's Front panel contains only LF and HF Drivers (Woofer and Tweeter).

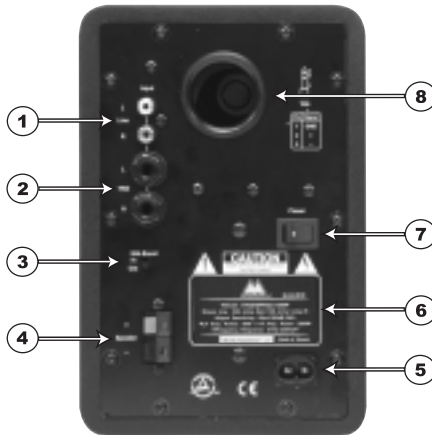


- 1. HIGH-FREQUENCY DRIVER (TWEETER)**
- 2. LOW-FREQUENCY DRIVER (WOOFER)**
- 3. POWER INDICATOR LED:** This blue LED lights lights the DX4's power is turned on.

4. **VOLUME CONTROL:** This control determines the output volume level of the DX4 speakers.
5. **HEADPHONE OUTPUT JACK:** This 1/8" jack outputs a stereo signal identical to the DX4's speaker output. When headphones are plugged into this jack, the DX4 speakers are muted and headphone volume is controlled using the volume control.

Rear

Note: This image shows the Rear panel of the Left Speaker. The Right Speaker's Rear panel contains only a single Speaker Terminal, for connection to the Speaker Terminal of this Left Speaker).



1. **RCA Line INPUTS (L & R)** - There are two RCA Line Inputs, marked as follows:

- "L" - Left Channel Input (white jack) &
- "R" - Right Channel Input (red jack).

These jacks accept standard RCA input connections with unbalanced wiring. The included 1/8-inch mini jack-to-RCA audio cable allows users to connect the DX4s to other equipment accepting 1/8-inch mini jack connections.

2. **TRS INPUTS (L & R)** - There are two TRS Line Inputs, marked as follows:

- "L" - Left Channel Input) &
- "R" - Right Channel Input).

These jacks accept a 1/4" connection with either balanced or unbalanced wiring.

Unbalanced 1/4" wiring can be done with either a two- or three-conductor (TS or TRS) plug. A two-conductor (TS) plug automatically grounds the signal's

negative input. A three-conductor (TRS) plug, wired unbalanced, provides the option of leaving the negative input open or grounded. We recommend grounding the unused negative input, which can be done by wiring the ring and sleeve of the TRS plug together.

For balanced wiring, a three-conductor TRS plug is necessary.

The input wiring of the TRS input connector is as follows:

- TRS TIP Signal positive (+)
- TRS RING Signal negative (—)
- TRS SLEEVE Signal ground (Shield)

Note: Input from the TRS and RCA connectors is summed together, allowing both inputs to be used simultaneously.

3. **MID-BOOST SELECTOR SWITCH:** This 2-position switch selects the Mid-Boost mode setting. The “Out” position setting produces a flat frequency response curve, while the “In” position provides an added boost in the mid-range frequencies.
4. **SPEAKER TERMINALS:** The rear panel of both Left and Right Speaker enclosures contains a spring-action speaker terminal. The included speaker wire should be used to connect the terminal on the left speaker to the terminal on the right speaker.
5. **POWER RECEPTACLE:** Accepts a detachable 2-circuit line cord in order to power the DX4 system.
6. **PRODUCT LABEL:** Contains your DX4’s model and serial number information.
7. **POWER SWITCH:** This switch turns the DX4 system on and off. The On position is indicated by the white dot on the switch.
8. **SUB FREQUENCY PORT:** This port aids in the reproduction of very low frequencies by discharging the frequencies below 60Hz.

Installation

In order to ensure optimal performance your DX4 system, please read carefully the following instructions before beginning installation.

Precautions

Handling: The DX4 speakers are packaged tightly within the box, so your attention is required when removing them. To avoid possible damage to the speaker, hold both sides of the unit (not the front or the back) in order to pull it out of the box. The speaker cones (the Woofer and the Tweeter) should not be touched in order to avoid damage even after they are removed from the box. Please do not touch the speaker cones (the Woofer or the Tweeter).

Connections: Connect the RCA or TRS inputs of your DX4 unit to the corresponding computer sound card or game console outputs. We recommend that you use high-quality cables for input connections. Be sure the power of the DX4 is off and turn the volume of the DX4 down to a minimum before making the necessary connections.

Correct Power Operation: Since the DX4 contains amplifiers; it must be connected to a power outlet using the detachable AC cable that is provided. Before connecting power, please make sure that the voltage of the DX4 corresponds with the voltage you are going to plug the power cord in.

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

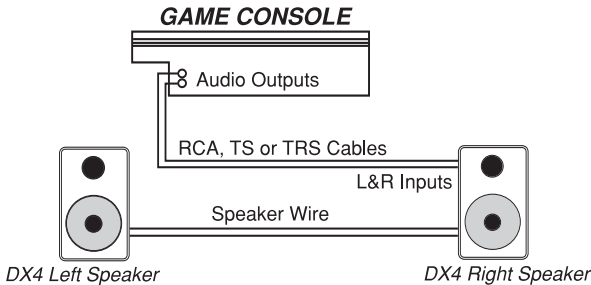
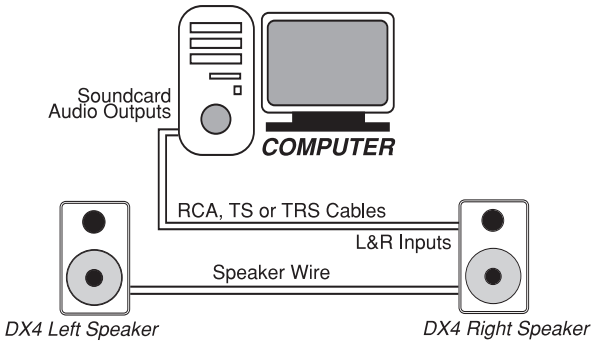
Speaker Wire Connection

Use the speaker wires included in the DX4 package to connect the Right and Left Speakers via the spring terminals.

Connecting to a Computer Sound Card or Game Console

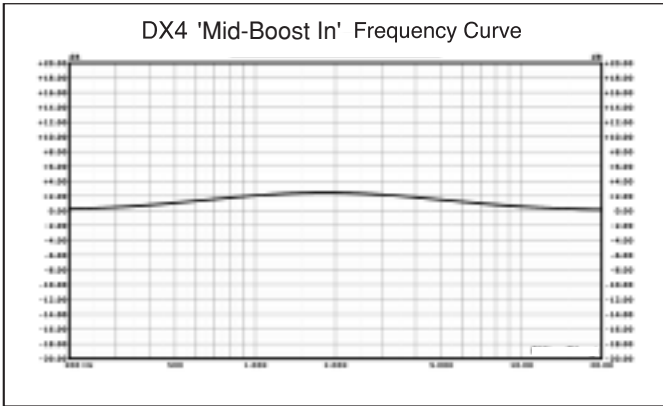
Before connecting the DX4s, make sure that the device to be connected to the DX4, and to the DX4 system itself has been powered off.

Plug the appropriate RCA, TRS or TS cable to the corresponding output connectors of the computer sound card or game console.



Setting the Mid-Boost EQ Switch

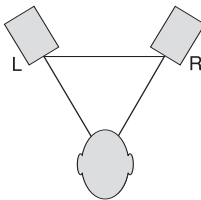
This 2-position switch allows you to select either the "In" or "Out" Mid-Boost mode. The Out mode produces a flat midrange response for normal monitoring and listening conditions. The In mode will move the sound stage forward toward your listening position.



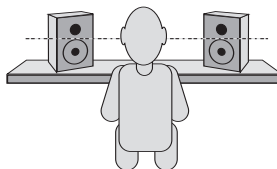
Placing the DX4

Placing the speakers is one of the most important considerations in accurately monitoring sound. To monitor with the DX4s performing at their maximum capacity, an appropriate listening environment and correct placement are required. Please refer to the following for DX4 placement.

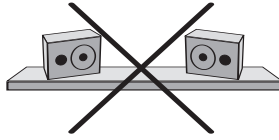
1. The two units and the listener should align to form a regular triangle. Refer to the following diagram:



2. Position the monitors so that the tops of the woofers are level with your ears in a normal listening environment. Refer to the following diagram:



3. Place the Left and Right DX4 units vertically and right side up. Placing the DX4 monitors horizontally is not recommended.



Important: DO NOT place any obstacles that may block the flow of air in front of or between the DX4 monitors. Also, remove reflective materials such as glass, mirrors or metal from the monitoring environment and place those materials away from the path of the sound from the DX4s.

Technical Support & Contact Information

For additional help, contact M-Audio Technical Support by telephone, fax or e-mail. If you have any questions, comments or suggestions about this or any M-Audio product, we invite you to contact us at:

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Warranty Information

Register online to receive FREE product updates and be entered to win FREE M-Audio gear (www.m-audio.com/register).

M-AUDIO warrants that this product is free of defects in materials and workmanship under normal use for a period of One (1) 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 M-AUDIO 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 that may become defective as a result of normal wear and tear. In the event that M-AUDIO receives written notice of defects in materials or workmanship from such an original purchaser, M-AUDIO will 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 M-AUDIO and a nominal handling charge shall be borne by the purchaser. In the event that repair is required, a Return Authorization number must be obtained from M-AUDIO. After this number is obtained, the unit should be shipped back to M-AUDIO in a protective package with a description of the problem and the Return Authorization clearly written on the package.

In the event that M-AUDIO 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 un-repaired.

The remedy for breach of this limited warranty shall not include any other damages. M-AUDIO 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 M-AUDIO'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. M-AUDIO specifically disclaims all other warranties, expressed or implied. Specifically, M-AUDIO 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.

Appendix A - Technical Specifications

Type: Two-way studio reference

LF Driver: 4-inch dia., magnetically-shielded with curved cone, high temperature voice coil and damped closed cell foam surround.

HF Driver: 1-inch dia., magnetically-shielded with specially shaped mylar dome

Frequency Response: 70Hz - 20kHz

Crossover Frequencies: 2.2kHz

RMS SPL: 101.5dB @ 1 meter

Dynamic Range: >95dB

S/N Ratio: >90dB (typical, A-weighted)

Input Connectors: Left and Right RCA Line Input connectors, Left and Right TRS balanced/unbalanced input connectors.

Polarity: Positive signal at + input produces outward low-frequency cone displacement

Dynamic Power: 18 watts/ 4 ohms with 2 channels connected

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

Input Sensitivity: 100 mV pink noise input produces 90dBA output SPL at 1 meter with volume control at maximum

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

Indicator: Blue power LED on front panel

Power Requirements: 120V/~60Hz, 230V/~50Hz or 100V/50Hz/60Hz; powered via detachable 2-circuit line cord

Cabinet: vinyl-laminated MDF

Dimensions: 8.5 inch (H) x 5.75 inch (W) x 6.25 inch (D)

Weight: 12 lbs./pair (approx., without packing)

* Above specifications subject to change without notice

Appendix B - Block Diagram

