

MIZISNR 234XL

MIZISNR 234XL Professional Audio Crossover User Manual

Model: 234XL

1. INTRODUCTION

Thank you for choosing the MIZISNR 234XL Professional Audio Crossover. This device is designed to precisely split audio signals into separate frequency bands, optimizing sound distribution to your amplifiers and speakers. This manual provides essential information for proper installation, operation, and maintenance to ensure optimal performance and longevity of your unit.

2. SAFETY INFORMATION

- **Power Supply:** Ensure the unit is connected to a 110-Volt AC power source as specified.
- **Ventilation:** Do not block ventilation openings. Ensure adequate airflow around the unit to prevent overheating.
- **Moisture:** Keep the unit away from water or excessive moisture. Do not operate in damp environments.
- **Servicing:** Refer all servicing to qualified service personnel. Do not attempt to open or repair the unit yourself.
- **Placement:** Place the unit on a stable, flat surface or mount it securely in a rack. Avoid placing it near heat sources or in direct sunlight.

3. PRODUCT FEATURES

- **Multiple Operating Modes:** Supports 2-way stereo, 3-way stereo, and 4-way mono operation, selectable from the rear panel.
- **Enhanced Sound Quality:** Splits audio signals into distinct frequency bands for cleaner sound and reduced distortion.
- **Individual Control:** Features separate output gain controls for each frequency band.
- **Phase Reverse Switches:** Individual phase reverse switches address polarity issues and optimize sound quality.
- **Low-Cut Filter:** Includes a dedicated low-cut switch to activate a 40 Hz, 12 dB/octave Butterworth high-pass filter.
- **XLR Balanced I/O:** Equipped with XLR balanced inputs and outputs for professional connectivity, minimizing interference.
- **Rugged Construction:** High-quality components and durable metal construction ensure long-lasting reliability.

4. CONTROLS AND INDICATORS (FRONT PANEL)

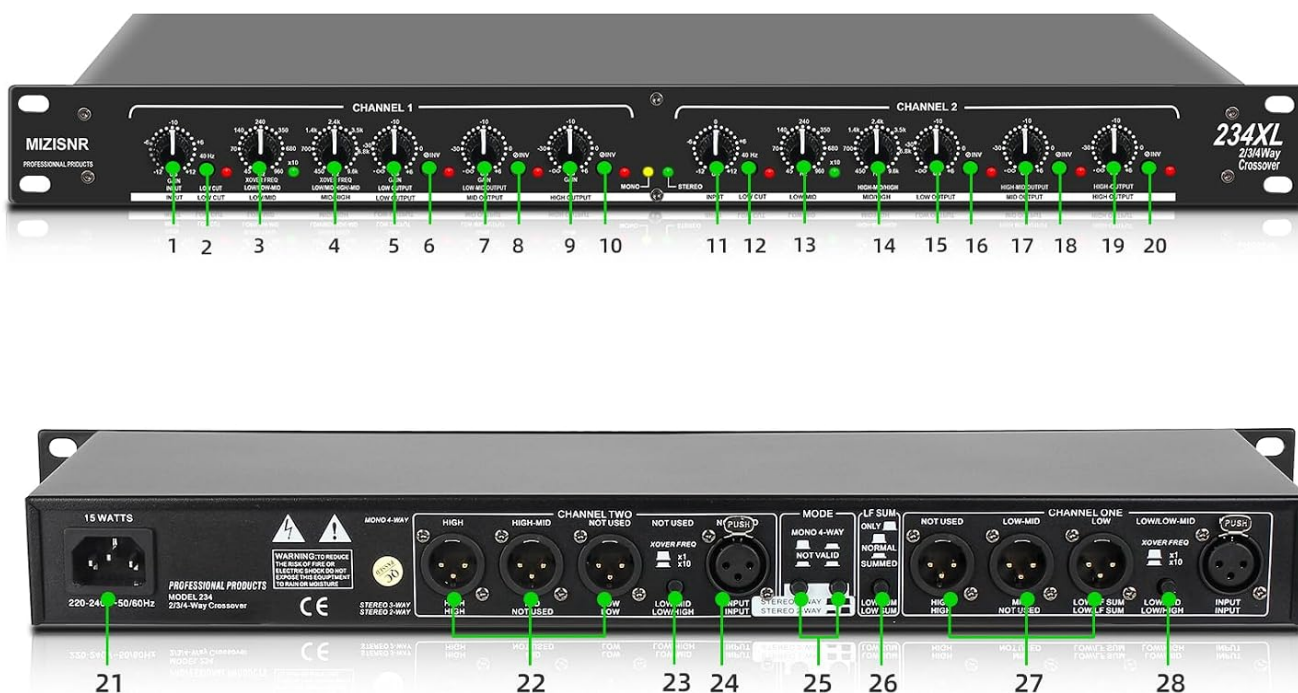
The front panel of the MIZISNR 234XL Crossover provides access to all essential controls and indicators for real-time audio adjustment and monitoring.

PROFESSIONAL AUDIO CROSSOVER

Split the audio signal into separate frequency bands to deliver a cleaner, superior sound for your PA system.



Figure 4.1: Front view of the MIZISNR 234XL Professional Audio Crossover, showing all knobs and LED indicators.



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| [1]&[11]. Input Gain Adjustment | [21]. Power Socket |
| [2]&[12]. Low Cut-off Switch | [22]. High/Medium/Low Output |
| [3]&[13]. Low/Mid Crossover Frequency Selector | [23]. Crossover Frequency Range Selector |
| [4]&[14]. Mid/High Crossover Frequency Selector | [24]. Signal Input Jack |
| [5]&[15]. Low Output Control | [25]. Mode Switch |
| [7]&[17]. Low-mid/Mid/High-mid Output Control | [26]. LF Sum Switch |
| [9]&[19]. High Output Control | [27]. High/Medium/Low Output |
| [6]&[8]&[10]&[16]&[18]&[20]. Phase Invert Switch | [28]. Signal Input Jack |

Figure 4.2: Detailed view of the front and rear panels with numbered labels for each control and connection point.

Front Panel Controls:

- **Input Gain Adjustment (1 & 11):** Controls the input level for each channel. Adjust to prevent clipping and ensure optimal signal-to-noise ratio.
- **Low Cut-off Switch (2 & 12):** Activates a 40 Hz, 12 dB/octave Butterworth high-pass filter to remove unwanted low-frequency rumble.
- **Low/Mid Crossover Frequency Selector (3 & 13):** Sets the crossover point between low and mid frequencies.
- **Mid/High Crossover Frequency Selector (4 & 14):** Sets the crossover point between mid and high frequencies.
- **Low Output Control (5 & 15):** Adjusts the output level for the low-frequency band.
- **Low-mid/High-mid Output Control (7 & 17):** Adjusts the output level for the mid-frequency band (used in 3-way stereo or 4-way mono modes).
- **High Output Control (9 & 19):** Adjusts the output level for the high-frequency band.
- **Phase Invert Switch (6, 8, 10, 16, 18, 20):** Inverts the phase of the corresponding output signal by 180 degrees to correct phase mismatches between speakers.

INDIVIDUAL CONTROL

Provides separate output gain controls for each band

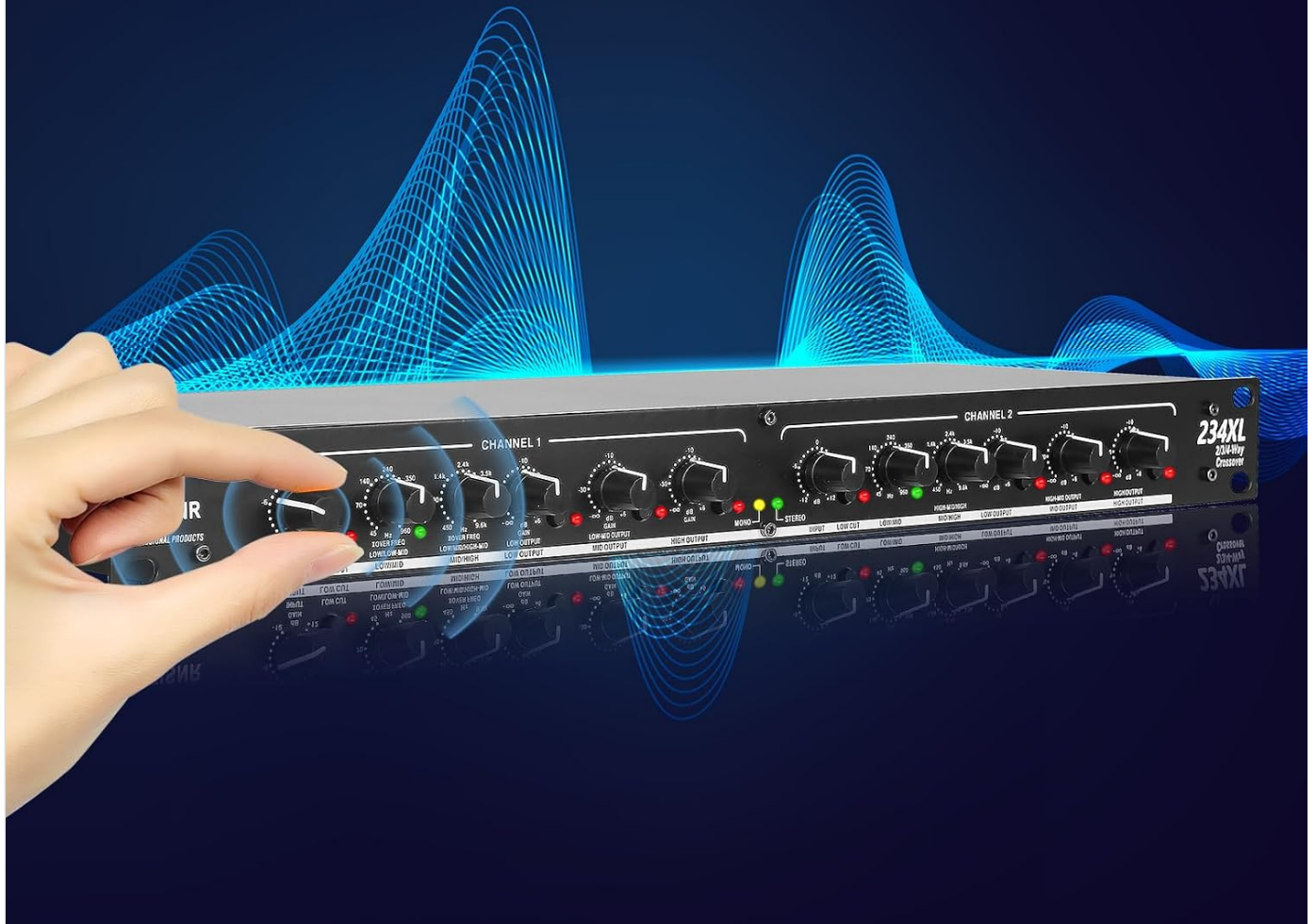


Figure 4.3: Demonstrates individual control over output gain for each band.

INDEPENDENT ADJUSTMENT

Individual level controls on all outputs for detailed audio processing

● Treble / ● Medium / ● Bass

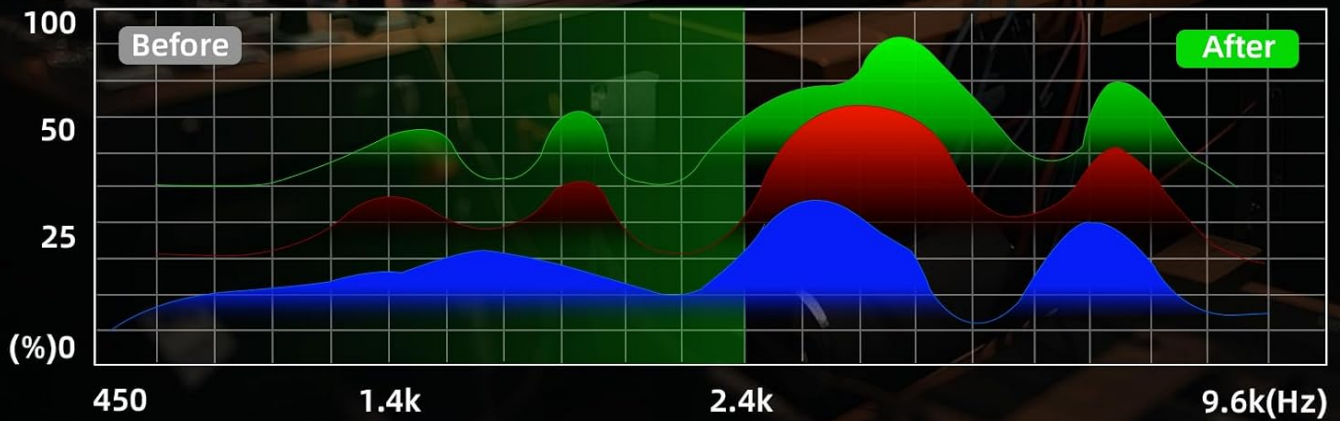


Figure 4.4: Visual representation of independent level controls for detailed audio processing.

INDIVIDUAL PHASE REVERSE SWITCHES

Help resolve phase issues, reduce interference, optimize sound quality.



Figure 4.5: Illustrates the individual phase reverse switches to resolve phase issues and optimize sound quality.

5. CONNECTIONS (REAR PANEL)

The rear panel houses all input and output connections, along with mode selection switches.

XLR BALANCED INS AND OUTS

It minimizes output waveform interference and safeguards against overloads.



Figure 5.1: Rear panel with XLR balanced inputs and outputs, designed to minimize waveform interference and safeguard against overloads.

Rear Panel Connections and Switches:

- **Power Socket (21):** Connects the unit to the AC power supply using the provided power cord.
- **High/Medium/Low Output (22, 27):** XLR outputs for connecting to amplifiers for high, medium, and low frequency bands.
- **Crossover Frequency Range Selector (23):** Multiplies the selected crossover frequency by x1 or x10.
- **Signal Input Jack (24, 28):** XLR inputs for receiving audio signals from your mixer or audio source.
- **Mode Switch (25):** Selects the operating mode: MONO 4-WAY, STEREO 3-WAY, or STEREO 2-WAY.
- **LF Sum Switch (26):** Engages the Low Frequency Summing function, combining low frequencies from both channels into a single mono output.

6. SETUP AND OPERATION

6.1 Initial Setup

1. Ensure the MIZISNR 234XL Crossover is powered off before making any connections.
2. Connect your audio source (e.g., mixer) to the INPUT jacks (24, 28) on the rear panel using XLR cables.
3. Connect the corresponding OUTPUT jacks (22, 27) to your power amplifiers, ensuring correct frequency band routing (High to tweeter amp, Mid to midrange amp, Low to subwoofer amp).
4. Connect the power cord to the Power Socket (21) and then to a suitable 110V AC outlet.
5. Power on your audio system components in the following order: Crossover, then amplifiers, then speakers. Power off in reverse order.

6.2 Operating Modes

The MIZISNR 234XL offers three distinct operating modes, selected via the Mode Switch (25) on the rear panel:

- **2-Way Stereo:** Separates audio into low and high frequencies for both left and right channels. Ideal for systems with subwoofers and full-range speakers.
- **3-Way Stereo:** Divides audio into low, mid, and high frequencies for both left and right channels. Suitable for systems with dedicated subwoofers, midrange, and tweeter speakers.
- **4-Way Mono:** Splits a mono audio signal into low, low-mid, high-mid, and high frequencies. Used for complex mono sound reinforcement systems.

6.3 Adjusting Controls

After selecting the desired operating mode, fine-tune the audio using the front panel controls:

- **Input Gain:** Adjust to achieve a strong signal without clipping (indicated by the clip LED).
- **Crossover Frequencies:** Set the crossover points according to your speaker specifications. Use the XOVER FREQ range selector (23) on the rear panel if higher frequencies are needed.
- **Output Gain:** Balance the levels of each frequency band to achieve a cohesive sound.
- **Phase Invert:** Listen carefully and use the phase invert switches to correct any phase cancellations between speakers, which can result in thin or weak sound.
- **Low Cut:** Engage the low-cut filter if you experience excessive low-frequency rumble or want to protect smaller speakers from very low frequencies.

Your browser does not support the video tag.

Video 6.1: This video demonstrates the various controls and connections of the MIZISNR 234XL Crossover, including how to adjust settings and connect to a mixer, followed by an effect demo. It provides a visual guide to the setup and operational aspects of the device.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid using abrasive cleaners or solvents.
- **Dust:** Regularly remove dust from ventilation slots to maintain proper cooling.
- **Storage:** If storing the unit for an extended period, disconnect it from power and store it in a cool, dry place.

8. TROUBLESHOOTING

Refer to the table below for common issues and their solutions.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No sound output	Incorrect connections, low gain settings, power off.	Check all XLR cable connections. Ensure input and output gain knobs are not at minimum. Verify unit is powered on.
Distorted sound	Input gain too high, output gain too high, incorrect crossover settings.	Reduce input or output gain. Adjust crossover frequencies to match speaker capabilities.
Weak or thin bass	Phase cancellation, low-cut filter engaged, incorrect low-frequency crossover.	Toggle phase invert switch for low output. Disengage low-cut filter. Adjust low/mid crossover frequency.
Hiss or noise	Ground loop, high gain settings, faulty cables.	Ensure all equipment is properly grounded. Reduce gain settings if possible. Replace suspected faulty cables.

9. SPECIFICATIONS

Detailed technical specifications for the MIZISNR 234XL Professional Audio Crossover.

PACKAGE LIST



1 X Power Cord



1 X Operation Manual

Bandwidth: 20Hz-20kHz, +0/-0.5dB

Intermediate Frequency Output: >93dB

Signal to Noise Ratio: >92dB, 4dBu, 22kHz

High-Frequency Output: >92dB

Low-Frequency Output: >94dB

Distortion + Noise: <0.004%, +4dBu

Frequency Response: 3Hz-90kHz, +0/-3dB

Inter-Channel Crosstalk: < -80dB, 20Hz-20kHz

Figure 9.1: Overview of package contents and key technical specifications.

Specification	Value
Brand	MIZISNR
Model	234XL
Maximum Supply Voltage	110 Volts (AC)
Mounting Type	Rack Mount
Number of Pins (XLR)	3
Upper Temperature Rating	150 Degrees Fahrenheit
Interface	XLR

Specification	Value
Number of Channels	2
Item Dimensions (L x W)	18.9"L x 5.9"W
Material Type	Metal
Bandwidth	20Hz-20kHz, +/-0.5dB
Signal to Noise Ratio	>92dB, 4dBu, 22kHz
Low-Frequency Output	>94dB
Frequency Response	3Hz-90kHz, +/-3dB
Intermediate Frequency Output	>93dB
High-Frequency Output	>92dB
Distortion + Noise	<0.004%, +4dBu
Inter-Channel Crosstalk	<-80dB, 20Hz-20kHz

10. WARRANTY AND SUPPORT

10.1 Warranty Information

The MIZISNR 234XL Professional Audio Crossover comes with a **2-Year Warranty** from the date of purchase. This warranty covers manufacturing defects and ensures the product meets its specified performance standards under normal use. Please retain your proof of purchase for warranty claims.

10.2 Customer Support

For any questions, concerns, or technical assistance regarding your MIZISNR 234XL Crossover, please contact MIZISNR customer support. We are committed to providing a satisfactory solution within 24 hours. Please refer to the contact information provided with your purchase or visit the official MIZISNR website for support details.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question