

Ashly MX-508

Ashly MX-508 8-Input Stereo Microphone Mixer User Manual

Model: MX-508

1. INTRODUCTION AND OVERVIEW

The Ashly MX-508 is an 8-input balanced stereo microphone mixer designed for professional audio applications, including live sound and fixed installations. Building on Ashly's extensive history in pro audio, this rack-mountable unit combines robust construction with high-quality analog circuitry to deliver reliable performance and excellent sound fidelity. It features Class A mic preamps, a 3-band mid-sweep EQ, and flexible AUX sends, making it a versatile tool for various mixing needs.

The MX-508 is housed in a durable 3RU rack chassis, ensuring it can withstand demanding environments while providing ease of integration into existing rack setups. Its design prioritizes ease-of-use without compromising on flexibility or sound quality.

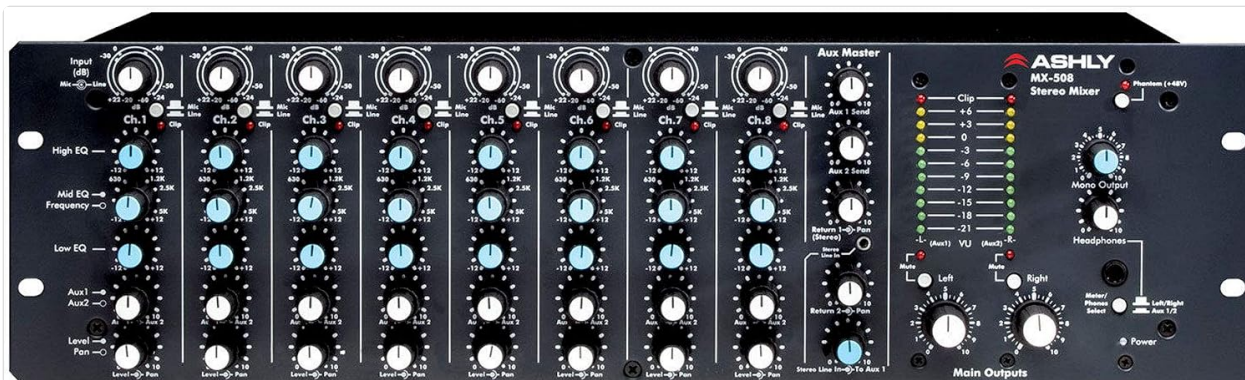


Figure 1: Front panel view of the Ashly MX-508 mixer, showing input channels, EQ, AUX controls, and main outputs.

2. KEY FEATURES

The Ashly MX-508 mixer incorporates a range of features designed for professional audio mixing:

- **8 Balanced Inputs:** Eight XLR balanced low-noise microphone/line inputs with high-gain preamps (60dB).
- **Phantom Power:** Switchable 48V phantom power for condenser microphones.
- **Input Pad:** 20dB input pad switch on each channel for managing hot signals.
- **Line Inputs:** Eight dedicated 1/4" line inputs and an additional 1/8" mini stereo line input on the front panel.
- **Flexible Outputs:** Transformer-isolated +24dBm 600 Ohm L/R XLR line outputs, L/R 1/4" outputs, and stereo phono tape outputs.
- **Headphone Monitoring:** 1/4" stereo headphone jack with independent level control.
- **Channel Inserts:** Eight channel insert send/return jacks for external processing.
- **Robust Construction:** Brushed all-aluminum rack-mountable front panel with a 3RU all-steel chassis, designed for high RF AC noise immunity.
- **Global Power:** 100-240VAC 50/60Hz universal power supply.
- **Channel Controls:** Each channel includes a selectable Mic/Line switch, gain trim, pan control, 3-band mid-sweep EQ, and two AUX Send controls.
- **AUX Returns:** Two AUX Return controls for processing external effects.
- **Level Metering:** Multi-element LED level meters for main L & R outputs, with peak clip indicators.
- **Additional Inputs:** Stereo RCA Tape/CD input with level control to Mains or Aux 1.

This rugged, versatile mixer won't let you down!

The MX-508 combines traditional Ashly quality with internally modular construction in a package offering outstanding value and reliability. This 8-input stereo rackmountable mixer is designed for a multitude of applications, and boasts an extensive mix of features for such a small unit.

The MX-508 features 84dB of gain to ensure full output with low-level or distant microphones. Several years of research went into the microphone preamp and the result is a discrete circuit with better than -129 dBu Equivalent Input Noise (EIN) and very low distortion. Low and High Shelving EQ combined with mid-band peaking EQ tunable from 140Hz and 8kHz make for a very flexible tone control. Phantom power of +48 VDC is provided for condenser microphones via a switch on the front panel. Precision input transformers are easily field-installable, and each input has its own 20dB pad switch. Variable gain trim and Mic/Line selection switches are also found on each input channel. Rounding out the list of standard input features are a Peak Clip indicator, two Aux Sends (factory-set with one pre-EQ and level and the other post-EQ and level, these sends may be modified by a qualified technician), In/Out channel patching, Level and Pan controls, and both balanced XLR Microphone and TRS Line inputs.



Figure 2: Detailed view of the MX-508 front panel, highlighting individual channel controls and master section.

3. SETUP

3.1 Rack Mounting

The MX-508 is designed for standard 19-inch rack mounting and occupies 3RU (Rack Units) of space. Secure the unit using appropriate rack screws to prevent movement and ensure proper ventilation around the mixer.

3.2 Power Connection

Connect the supplied AC power cord to the mixer's power inlet on the rear panel and then to a suitable AC power outlet (100-240VAC, 50/60Hz). Ensure the power switch is in the 'OFF' position before connecting.

3.3 Input Connections

The MX-508 offers various input options:

- **Microphone Inputs (XLR):** Connect balanced microphones to the XLR inputs on the rear panel for channels 1-8. If using condenser microphones, activate the 48V phantom power switch on the front panel.

- **Line Inputs (1/4" TRS):** Connect line-level sources (e.g., keyboards, preamps) to the 1/4" TRS line inputs on the rear panel for channels 1-8.
- **Mini Stereo Input (1/8"):** For connecting portable devices, use the 1/8" mini stereo input on the front panel.
- **Tape/CD Input (RCA):** Connect stereo RCA sources to the Tape/CD input on the rear panel.

3.4 Output Connections

Connect your monitoring and recording equipment to the mixer's outputs:

- **Main Outputs (XLR & 1/4" TRS):** Connect to your power amplifier, powered speakers, or recording interface using the balanced XLR or 1/4" TRS outputs on the rear panel.
- **Tape Outputs (RCA):** For recording, connect to a stereo recorder using the RCA tape outputs.
- **Headphone Output (1/4"):** Connect stereo headphones to the front panel 1/4" jack for personal monitoring.
- **Channel Inserts (1/4" TRS):** For external effects processing on individual channels, connect send/return cables to the 1/4" TRS insert jacks.



Transformer-balanced Left and Right XLR outputs are standard, as are balanced Left and Right TRS 1/4" outs. There is also an independent Mono output with its own front panel level control, as well as a selectable Headphone output with Level Control. There are Pre-Master Sub In/Out patch points for linking other mixers, such as the Ashly MM-106 six-input microphone mixer. Peak Clip indicators are also provided for the Outputs, and the 10-Segment LED Meters may be selected to monitor either Program Left and Right or Aux 1 and 2. Maximum output level is +24dB into 600 ohms.

The MX-508 also has two Master Aux Sends and two panable Master Aux Returns (one stereo and the other mono). There is an additional stereo RCA Tape/CD Input with level control to the Mains or Aux 1. Stereo RCA Tape Outputs are also provided.

Figure 3: Detailed view of the MX-508 rear panel, illustrating all input and output connection points.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

After all connections are made, switch the power button on the rear panel to 'ON'. It is recommended to power on the mixer before power amplifiers and power off amplifiers before the mixer to prevent transient noises.

4.2 Input Channel Controls

- **Mic/Line Switch:** Selects between microphone (XLR) and line (1/4") input sensitivity.
- **20dB Pad:** Engages a 20dB attenuation for very hot input signals.
- **Gain Trim:** Adjusts the input level for each channel. Set this to achieve a strong signal without clipping (indicated by the 'Clip' LED).
- **3-Band Mid-Sweep EQ:** Adjusts the tonal characteristics of the input signal. The 'High EQ' and 'Low EQ' controls affect the treble and bass frequencies, respectively. The 'Mid EQ' control allows you to sweep through a range of mid-frequencies and then boost or cut the selected frequency.
- **AUX Sends:** Controls the amount of signal sent from the channel to the two auxiliary sends (AUX 1 and AUX 2). These are typically used for effects sends or monitor mixes.
- **Pan Control:** Positions the channel's signal within the stereo field (left to right).
- **Level Control:** Adjusts the overall output level of the channel to the main mix.

4.3 Master Section Controls

- **AUX Returns:** Controls the level of the signals returning from external effects processors connected to the AUX returns.
- **Main Outputs:** Adjusts the overall output level of the stereo main mix.
- **Headphone Level:** Controls the volume of the headphone output.
- **LED Meters:** The multi-element LED meters display the output level of the main L/R mix or selected AUX sends, helping to prevent clipping.
- **Phantom Power Switch:** Globally activates or deactivates 48V phantom power for all XLR microphone inputs.

5. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Ashly MX-508 mixer.

- **Cleaning:** Regularly clean the exterior with a soft, dry cloth. For stubborn dirt, a slightly damp cloth can be used, ensuring no liquid enters the unit. Avoid abrasive cleaners or solvents.
- **Ventilation:** Ensure adequate airflow around the unit, especially when rack-mounted. Do not block ventilation openings.
- **Storage:** When not in use for extended periods, store the mixer in a cool, dry environment, away from direct sunlight and extreme temperatures.
- **Cable Management:** Use proper cable management to prevent strain on connectors and accidental disconnections.

6. TROUBLESHOOTING

If you encounter issues with your MX-508, consider the following basic troubleshooting steps:

- **No Power:** Check the power cable connection and ensure the power switch is 'ON'. Verify the power outlet is functional.
- **No Sound Output:**
 - Verify all input and output cables are securely connected.
 - Check channel level controls, main output level, and headphone level.
 - Ensure the correct input source is selected (Mic/Line switch).

- Confirm connected amplifiers or powered speakers are operational.
- **Distorted Sound:**
 - Reduce input gain if the 'Clip' LED is frequently illuminating.
 - Check for proper impedance matching between sources and inputs.
 - Ensure output levels are not overdriving connected equipment.
- **No Phantom Power:** Verify the 48V phantom power switch is engaged for condenser microphones.
- **Hum or Noise:**
 - Check for ground loops; try connecting all audio equipment to the same power strip.
 - Ensure all cables are in good condition and properly shielded.
 - Keep audio cables away from power cables.

If problems persist after attempting these steps, contact Ashly technical support for further assistance.

7. SPECIFICATIONS

Specification	Detail
Model Number	MX-508
Item Weight	14.7 pounds
Product Dimensions	9.4 x 19 x 5.25 inches
Rack Size	3RU
Number of Channels	8
Input Connectors	XLR, 1/4 Inch, 3.5mm, RCA
Output Connectors	XLR, 1/4 Inch, RCA
EQ	3-band with Mid-Sweep
Phantom Power	48V (Switchable)
Power Source	AC (100-240VAC, 50/60Hz)
Material Type	Metal (Aluminum front panel, Steel chassis)
Color	Black
Equivalent Input Hum and Noise	128dBu (input switch -60dB)
THD (+20dBu, 20Hz-20kHz)	0.05%
Frequency Response	20Hz-20kHz +0/-0.5dB
Crosstalk (20Hz-20kHz)	60dB

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Ashly Audio website or contact your authorized Ashly dealer. Keep your purchase receipt as proof of purchase for warranty claims.

Ashly Audio Contact Information:

Please visit www.ashly.com for the latest support resources, contact details, and service information.