PURERESONANCEAUDIO®

MX84 RACK MOUNT MIXER

INSTALLATION AND OPERATION MANUAL

SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use
- Be sure to follow the instructions in this manual, as safety symbols and message conventions are considered very important precautions
- We also recommend you keep this instruction manual handy for future reference

SAFETY SYMBOLS AND MESSAGE CONVENTIONS

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage that could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety risks.

⚠ **WARNING!**   Indicates a potentially hazardous situation that, if mishandled, could result in death or serious personal injury.

⚠ **CAUTION!**   Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury and/or property damage.

⚠ WARNING!

WHEN INSTALLING THE UNIT

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than specified may result in fire or electric shock.
- Do not cut, bend, damage, or modify the power cord. Also, avoid using the power cord near heating appliances. Never place heavy objects (including the unit itself) on the power cord, which could result in fire or electric shock.
- Do not install or place the device in an unstable place, such as a wobbly table or sloped surface. Otherwise, the device may fall and cause personal injury and/or property damage.

WHEN THE UNIT IS IN USE

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet, and contact your nearest dealer. Make no further attempt to operate the unit in this condition, as this may cause fire or electric shock.
    - If you detect smoke or a strange smell coming from the unit
    - If water or any metallic object gets into the unit
    - If the unit falls or the unit case breaks
    - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
    - If it is malfunctioning (no tone sounds)
- To prevent a fire or electric shock, never open or remove the unit case, as there are high-voltage components inside the unit. Refer all servicing to your nearest dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on the unit.

⚠ CAUTION!

WHEN INSTALLING THE UNIT

- Never plug in or remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Avoid installing the unit in humid or dusty locations, in locations exposed to direct sunlight, near the heaters, or in locations generating sooty smoke or steam, as doing otherwise may result in fire or electric shock.

WHEN THE UNIT IS IN USE

- Do not place heavy objects on the unit, as this may cause it to fall or break, which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Ensure the volume control is set to the minimum position before the power is switched on. Loud noise produced at high volume when the power is switched on can impair hearing.
- Do not operate the unit for an extended period with the sound distorting. This indicates a malfunction, which can cause heat to generate and result in a fire.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

PLEASE NOTE:
Due to product upgrades, some of the features and specifications in this user manual may or may not match the actual functions of the unit.

DESCRIPTION

The Pure Resonance Audio MX84 is a robust and user-friendly 2U rack-mountable audio mixer with exceptional versatility and intuitive control across 8 channels and 4 zones. Four of the eight channels feature balanced microphone and line-level inputs, while the remaining channels offer balanced or unbalanced inputs for line-level audio sources. A user-friendly front panel provides easy access to individual volume controls, tone adjustments, channel zone selection, zone mute, and protection indicator lights. Additionally, the MX84 has a built-in speaker for monitoring individual zones, priority mute input, and remote mic input, allowing seamless integration with a paging microphone or emergency voice alarm system.
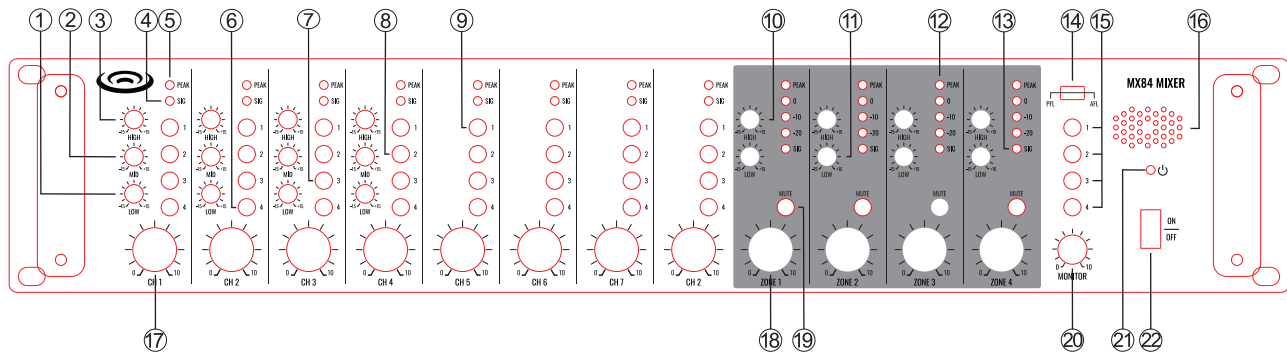
FEATURES

- Compact 2U rack-mountable design
- 4 Zone outputs with 2-band EQ, gain control, priority mute input, remote input (for use with MX8-WP wall control), and protection indicator lights
- 8 Convenient inputs with gain control, zone selection, and protection indicators
- Channels 1: Balanced XLR and TRS inputs with 3-band EQ, phantom power, and priority ducking switch
- Channels 2-4: Balanced XLR and TRS inputs with 3-band EQ and shared phantom power switch
- Channels 5-8: Balanced TRS and unbalanced RCA inputs
- A built-in speaker for monitoring individual zones
- Priority remote mic features audio ducking and paging zone selection (for use with MX8-PM paging microphone)
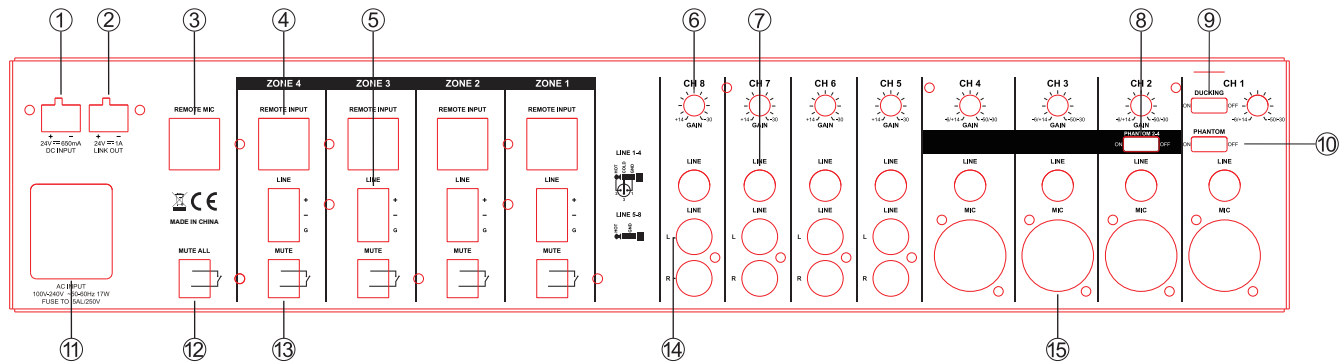
SPECIFICATIONS

Input Sensitivity / Impedance	Mic Input: -50 dB~ -6 dB / 20k Ω Balanced Line Input: -30 dB~ +14 dB / 20k Ω Balanced Remote Input: 0 dB / 600Ω Balanced
Output Level / Impedance	0 dB / 600 Ω Balanced
Phantom Power	Individual switch for CH 1 / master switch for CH 2-4
Frequency Response	20Hz - 20kHz ±1 dB
Distortion (THD)	< 0.1%
Signal-to-Noise (S/N) Ratio	> 90 dB
Priority Ducking	> 70 dB
Equalization	Input: High: 12 kHz ± 15 dB / Mid: 2.5 kHz ± 15 dB / Low: 80 Hz ± 15 dB Output: High: 10 kHz ± 15 dB / Low: 100 Hz ± 15 dB
Indicator	CH 1-8: Clipping and signal Zone 1-4: Clipping, output level and signal
Power	AC 100 - 240V, 50 / 60Hz
Dimensions (H x W x D)	3.5" (88.9 mm) x 19" (482.6 mm) x 11.25" (285.8 mm)
Weight	19.84 lbs (9 kg)

FRONT PANEL

1. **Channel Specific Low-Frequency EQ Knob** - Boost or cut the low-frequencies by adjusting the knob
2. **Channel Specific Mid-Frequency EQ Knob** - Boost or cut the mid-frequencies by adjusting the knob
3. **Channel Specific High-Frequency EQ Knob** - Boost or cut the high-frequencies by adjusting the knob
4. **Channel SIG (Signal Indicator Light)** - The signal indicator lights up when there is an audio signal input
5. **Channel PEAK (Signal Peak Indicator Light)** - When the indicator light is on, the machine has reached the peak of the rated power output. To avoid distortion or clipping, the volume knob should be appropriately adjusted to reduce the volume.
6. **ZONE 4 Selector** - Depress button to send this channel to ZONE 4
7. **ZONE 3 Selector** - Depress button to send this channel to ZONE 3
8. **ZONE 2 Selector** - Depress button to send this channel to ZONE 2
9. **ZONE 1 Selector** - Depress button to send this channel to ZONE 1
10. **ZONE High-Frequency EQ Adjustment** - Knob adjusts the high frequencies on the specified zone
11. **ZONE Low-Frequency EQ Adjustment** - Knob adjusts the low frequencies on the specified zone
12. **ZONE PEAK (Signal Peak Indicator Light)** - When the indicator light is on, the machine has reached the peak of the rated power output for this ZONE. To avoid distortion or clipping, the volume knob should be appropriately adjusted to reduce the volume.
13. **ZONE Signal Indicator Light** - When an audio signal is going to zone, the indicator light will light up
14. **PFL (Pre-Fade Listen) / AFL (After-Fade Listen) Monitor Switch -** Allows you to monitor a channel's signal level before (PFL) or after (AFL) the channel fader
15. **Monitor Zone Selection** - Select which zone to monitor via the built-in speaker
16. **Monitor Speaker** - Built-in speaker to monitor individual zones
17. **Channel Volume Knob** - The volume will increase when the knob is rotated clockwise. When rotated counter-clockwise, the output level will decrease
18. **ZONE Volume Knob** - When the knob is rotated clockwise, the volume in the specified ZONE will increase. When rotated counter-clockwise, the volume in the specified ZONE will decrease.
19. **ZONE Mute** - Depress button to mute a specific zone
20. **Monitor Volume Knob** - The volume will increase when the knob is rotated clockwise. When rotated counter-clockwise, the output level will decrease.
21. **Power Indicator Light** - When the amplifier is turned on, the power indicator light turns on to indicate that the amplifier is in a working state. When the power is turned off, the power indicator light turns off
22. **Power Switch** - The button turns the unit on and off

BACK PANEL

1. **DC Power Connection Input** - Connection for external DC power supply
2. **DC Power Connection Output** - Connection for external DC power supply
3. **Remote Paging Mic** - RJ45 connection for remote paging mic (MX8-PM)
4. **ZONE Remote Input** - RJ45 connection for remote wall plate (MX8-WP)
5. **ZONE Line Out** - Line level output
6. **Channel Specific Gain Knob** - Adjust the gain on a specified channel by adjusting the knob
7. **Channel Specific TRS Input** - Balanced, line-level input
8. **Channels 2-4 Phantom Power Switch** - Turn on or off phantom power for channels 2-4
9. **Channel Specific Priority Switch** - Turn on or off priority ducking. When turned on, other audio sources going to the same zone will be turned down when a signal is played through channel 1. When the signal from channel 1 stops, the level of other audio sources will be raised back to their previous level.
10. **Channel 1 Phantom Power Switch** - Turn on or off phantom power for channel 1
11. **Power Cord Connection (IEC)** - Connection point for IEC power cable
12. **Priority Mute Input** - Euroblock Connector
13. **ZONE Priority Mute Input** - Euroblock Connector
14. **Channel Specific RCA Input** - Unbalanced, line-level input
15. **Channel Specific XLR Input** - Balanced, mic-level input

CONTROLS

FRONT

- 4 Mic/Line input level (CH 1-4) with 3-band EQ and output zone selector buttons
- 4 Line input level (CH 5-8) with output zone selector buttons
- Output level control with 2 tone control and mute button
- Monitor level control with output zone selector buttons

BACK

- 8 Gain controls for each input
- Priority ducking switch for CH 1
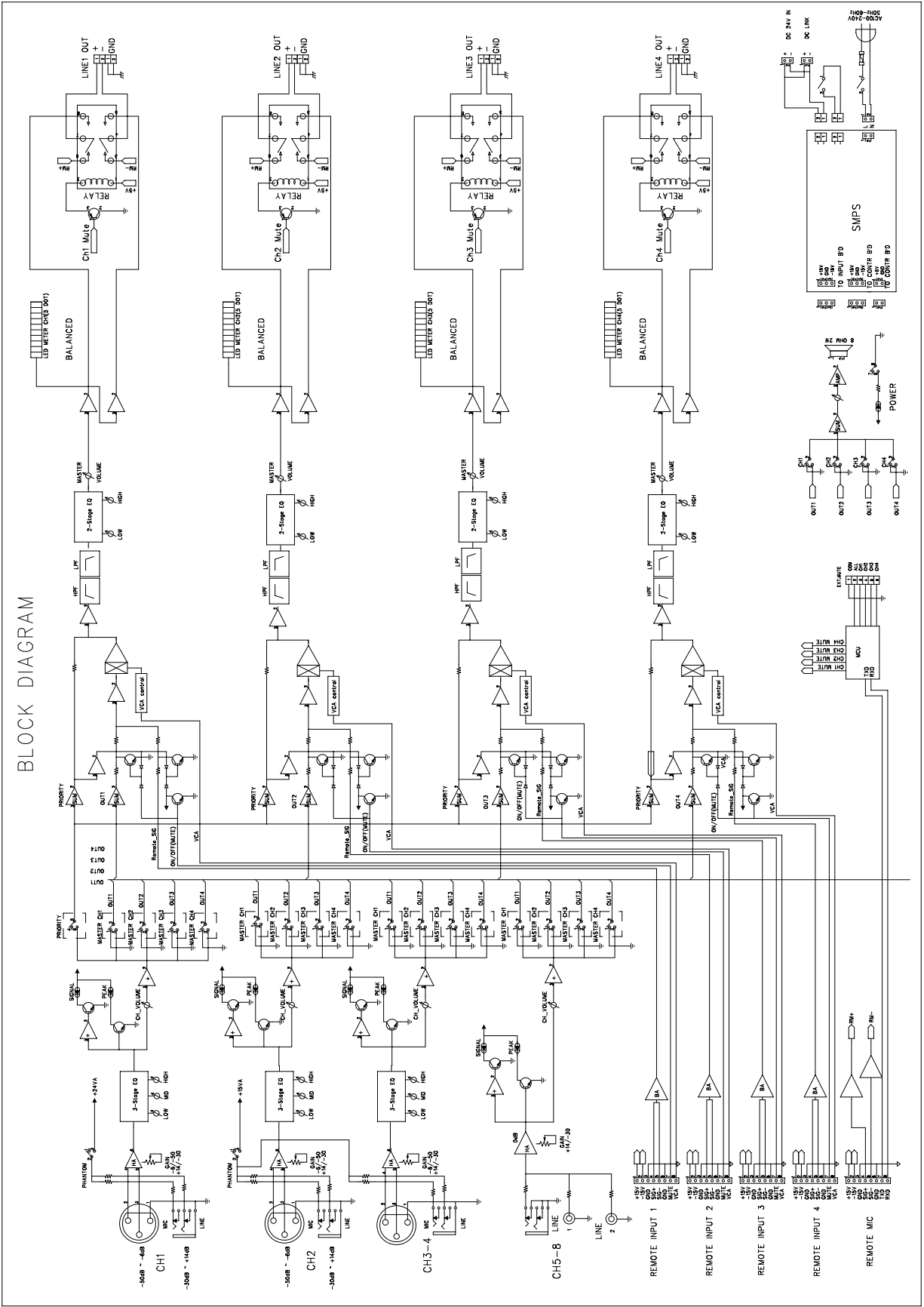- Phantom power switches for CH 1 and CH 2-4

CONNECTIONS

- 4 XLR Electronically balanced jacks and 1/4" phone jacks for CH 1-4 inputs
- 4 1/4" Phone jacks and RCA jacks for CH 5-8 inputs
- RJ45 jack for remote music source input and remote mic input
- Euroblock for output
- 4 Individual zone priority mute inputs and dedicated priority mute inputs

INDICATORS

- PEAK and SIG for each input channel
- PEAK, 0 dB, -10 dB, -20 dB, and SIG for each output channel

BLOCK DIAGRAM

SERVICE

In the event of a malfunction, ensure the problem is not related to operator error or system devices external to this unit. Once it is certain that the problem is related to the product, contact your warranty provider as described in the warranty section of this manual.

LIMITED WARRANTY

PRO ACOUSTICS, LLC. ("PRO ACOUSTICS") warrants this product to the original purchaser to be free from defects in materials and workmanship (subject to the terms set forth below), for the following periods from the date of purchase.

THIS WARRANTY COVERS THE LISTED PRODUCTS AGAINST DEFECTS IN MATERIALS OR WORKMANSHIP FOR THE FOLLOWING PERIOD

Warranty Terms

Speakers	2 Years
Amplifiers & Electronics	1 Year
Microphones	1 Year
Accessories	1 Year

PRO ACOUSTICS will repair or replace (at PRO ACOUSTICS's option) this product or any defective parts (excluding electronics and amplifiers) in this product.

Your authorized PRO ACOUSTICS dealer will inspect the product and, if your dealer is not equipped to perform the repair of your PRO ACOUSTICS product, they will replace your product or return it to PRO ACOUSTICS for repair, at their discretion. Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the warranty period, must be presented to obtain warranty service.

This warranty is invalid if the factory applied serial number has been altered or removed from this product. This warranty is invalid if this product was not purchased from a PRO ACOUSTICS authorized dealer. Cos' metic damage or damage due to the accident, acts of God, misuse, abuse, negligence, commercial use, or modification of, or to any part of, the product are not covered in this warranty. This warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than PRO ACOUSTICS or a PRO ACOUSTICS dealer which is authorized to do PRO ACOUSTICS warranty work. Any unauthorized repairs will void this warranty.

This warranty does not cover products sold as is.

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