

PARASOUND



Zphono XRM

Phono Preamplifier

OWNER'S GUIDE

Important Safety Instructions

The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of "dangerous voltage" inside the product that may constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

1. **Read Instructions** — Read all the safety and operating instructions before operating this product.
2. **Retain Instructions** — Retain safety and operating instructions for future reference.
3. **Heed Warnings** — Adhere to all warnings on the product and in the operating instructions.
4. **Follow Instructions** — Follow all operating and use instructions.
5. **Cleaning** — Unplug this product from the wall outlet before cleaning. Use a damp cloth for cleaning. Clean the outside of the product only.
6. **Attachments** — Do not use attachments that are not recommended by the product manufacturer; they may be hazardous.
7. **Water and Moisture** — Do not use this product near water.
8. **Accessories** — Do not place this product on an unstable cart or stand. The product may fall, causing bodily injury and damage to the product. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart to overturn.
9. **Ventilation** — Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided.
10. **Power Sources** — Operate this product only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company. This product is equipped with a three-prong grounding plug. This plug will only fit into a grounding power outlet. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding plug.
11. **Power Cord Protection** — Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them.
12. **Lightning** — Unplug the unit from the wall outlet for added protection during a lightning storm and when it is left unattended and unused for long periods of time. This will prevent damage to the product due to lightning and power line surges.
13. **Overloading** — Do not overload wall outlets or extension cords. This can result in a fire or electric shock.
14. **Inserting Objects into Unit** — Never push objects of any kind into this product through any openings; they may touch dangerous voltage points or short out parts that could result in fire or electric shock.
15. **Servicing** — Do not attempt to repair or service this product yourself. Opening or removing covers may expose you to dangerous voltage and other hazards. Refer all servicing to qualified service personnel.
16. **Damage Requiring Service** — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions: **a)** If the power-supply cord or plug is damaged. **b)** If liquid has been spilled into the product. **c)** If the product has been exposed to rain or water. **d)** If the product does not operate normally by following the operating instructions. **e)** If the product has been dropped or damaged in any way. **f)** If the product exhibits a distinct change in performance.
17. **Replacement Parts** — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer. Unauthorized substitutions may result in fire, electric shock, and other hazards.
18. **Safety Check** — Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
19. **Wall or Ceiling Mounting** — Mount the product to a wall or ceiling only as recommended.
20. **Heat** — The product should be situated away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.

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INTRODUCTION

Thank You for Choosing Parasound

Your new Parasound Zphono XRM is an innovative and unique phono preamplifier. We are proud to offer you this exceptionally versatile audio component, confident that it will bring you many years of enjoyment and dependability.

We appreciate you taking the time to read these instructions and thank you for selecting Parasound. For updates and corrections to this manual, we invite you to check our web site, ***www.parasound.com***. Enjoy.

The Parasound Staff

Keeping Records for Future Reference

Record the serial number located on the back panel or bottom of your Zphono XRM in the space below. Also note your Parasound Dealer's name and telephone number. Your purchase receipt/bill of sale is required to determine if your Zphono XRM is eligible for Parasound warranty service. We recommend that you make an extra copy of your original purchase receipt/bill of sale and store it inside the Zphono XRM's carton.

Five Digit Serial Number (located on the bottom) _____

Date of Purchase: _____

Name of Parasound Dealer where you purchased it _____

Parasound Dealer Phone Number _____

Important Warranty information

There is no Parasound warranty for this unit if it was not purchased from an Authorized Parasound Dealer. Investigate warranty coverage statements made by an *unauthorized* dealer with extreme caution, as you will need to depend entirely upon your dealer, and NOT upon Parasound.

Unauthorized dealers lack the capability to make repairs or arrange for repairs of Parasound equipment. A list of Authorized Parasound Dealers and detailed warranty information is available at ***www.parasound.com*** or you can call **(415)-397-7100** between 8:30am and 4 pm Pacific time.

A missing or altered serial number could indicate that this unit was re-sold by an unauthorized dealer or is stolen merchandise. If this unit is missing its serial number or the serial number has been altered, you should return it to your dealer immediately for a full refund.

Unpacking & Placement Guidelines

Unpacking Your Zphono XRM

Carefully remove your Zphono XRM from its shipping carton and locate its AC power cord. While you are unpacking your Zphono XRM inspect it thoroughly for possible shipping damage and tell your Parasound dealer immediately if you find any. If possible, save and store the carton and the foam packing inserts, to protect the Zphono XRM if you have to move it or ship it. You may wish to flatten the cardboard cartons to save room in storage after cutting the taped seams on the bottom flaps. This would be a good time to make a copy of your sales receipt to store with the Zphono XRM's original packing.

Placement Guidelines

The Zphono XRM will be easier to use and will last longer if you follow these simple guidelines:

- Use output cables that are long enough to leave some slack; that will enable you to pull the Zphono XRM out of a cabinet to check or to change connections without inadvertently disconnecting cables.
- If you're putting the Zphono XRM in a cabinet, it needs a space that's at least 12 inches wide so you'll be able to turn it around for access to its rear panel connections.
- Place your Zphono XRM where you can route turntable and output b cables as far as possible from any AC cords.
- Where signal cables must cross AC cords they should do so only at a 90° right angle.
- We recommend that you do not place the Zphono XRM above a power amplifier or any other component which uses a large power transformer because noise could be picked up by the Zphono XRM.

Rack Mounting Your Parasound Zphono XRM

To rack mount the Zphono XRM you will need to purchase the optional Parasound ZRK (rack mount kit). Its panel height occupies 1-3/4" or 44.5 mm, one rack space (1U).

115/230V AC Voltage Switch

This switch is found on the underside of the chassis. Make sure the 115V/230V switch is set for the correct AC line (mains) voltage *before* you plug in the Zphono XRM's AC power cord.

The Zphono XRM could be seriously damaged if the AC Voltage Selector switch is in the wrong position for your voltage!

The 115V setting is correct for North America where the Zphono XRM can operate safely with AC line voltages between 110V-125V. Most other countries will require the switch to be set to 230V. With the 230V setting the Zphono XRM can operate safely with AC line voltages between 220V-250V.



Connecting & Adjusting your Zphono XRM

Always disconnect your Zphono XRM's AC cord and line stage preamp or integrated amplifier AC cords before making or changing the input or output connections. Inserting or removing turntable cables or output interconnects while the Zphono XRM and your integrated, line stage preamp or receiver are turned on can result in a blast of sound that can damage your loudspeakers. Make sure there is no strain or tension on any cables that could cause them to pull loose.

Turntable Connections

The Zphono XRM has separate input jacks and circuitry for MM (moving magnet) and MC (moving coil) cartridges. Connect your turntable's signal cables to the Input jacks on the Zphono XRM that correspond to the type of cartridge you are using. You can connect two turntables simultaneously if one turntable has an MC cartridge and the other turntable has an MM cartridge. You can also use a turntable with two tonearms provided one is equipped with an MC cartridge and the other with an MM cartridge. If you are unsure what type of cartridge you have then start with MM since it is the most common.

Use the MM Input jacks if your cartridge type is MM.

Use the MC Input jacks if your cartridge type is MC.

Ground Connection

The turntable's ground wire attaches to the Zphono XRM Ground terminal at the left side of the rear panel. If you are using two turntables or a single turntable with two tonearms connect both of their ground wires to this ground connection.

Note: In some systems eliminating hum or buzz might require connecting your turntable ground wire directly to your integrated amplifier or preamp instead of to the Zphono XRM. You can use a chassis screw or the outer ring of an RCA connector. In rare instances hum might be lowest if your turntable ground wire is not attached at all.

Important Note: Turntables and phono preamps are very sensitive to electromagnetic fields that can cause audible hum. To minimize hum follow these guidelines:

- Place your turntable(s) as far as possible from amplifiers and AC power line conditioners.
- Run your turntable signal cables as far as possible from power amplifiers and AC power line conditioners.
- Do not route the turntable signal cables parallel with any AC cords.
- Wherever turntable signal cords must cross AC wires they should cross at a 90° right angle.
- It might be necessary for you to experiment with the exact positioning of the turntable signal cables to minimize hum.

Cartridge Settings

MC & MM Gain Options

Before listening to the Zphono XRM you should select the appropriate gain for your cartridge. The most typical settings are 40 dB for MM and 60 dB for MC. This is a good place to start but you may want to experiment to see what sounds best in your system. **We suggest turning off the Zphono XRM before making gain changes to prevent an audible “pop” noise.**

MC Gain Options:

50 dB For high output moving coil cartridges.

60 dB For low output moving coil cartridges whose output is less than 0.5 mV.

MM Gain Options:

40 dB Appropriate for most moving magnet cartridges.

50 dB For low output moving magnet cartridges.

MC Input Impedance Adjustment

The Zphono XRM's Impedance adjust knob allows you to fine tune the input impedance for MC cartridges over a range of 50 ohms to 1050 ohms. Cartridge manufacturers recommend what they consider to be an optimal load impedance. However, their published specification won't necessarily give you the best results in your system. We encourage you to experiment with this control and use whichever load impedance you feel results in the best performance of your system.

Audio Output Connections

The Zphono XRM Output jacks connect to the line level input jacks on your line stage preamplifier, integrated amplifier or receiver. Both balanced XLR and unbalanced RCA output jacks are provided. If your preamplifier, integrated amp or receiver is equipped with balanced XLR inputs we recommend using the Zphono XRM Balanced XLR output jacks for the maximum rejection of external noise. The balanced and unbalanced jacks are active simultaneously.

AC Power Connection

AC Power Inlet & Power Cord

A high quality IEC-type power cord is supplied with your Zphono XRM. Please connect it directly to an AC wall outlet or power line conditioner that is always "live." If possible, plug your Zphono XRM into the same AC wall outlet or line conditioner that your preamplifier or integrated amp is plugged into. If a different AC outlet is used for the Zphono XRM the ground potential may be higher or lower between the AC outlets, resulting in audible hum.

Note: Before you plug in the AC cord please review 115 V / 230 Voltage Selector Switch information on page 5.

Front Panel Controls

Power Button

Turns your Zphono XRM on and off.

Stereo/Mono Mode Switch

Selecting Mono parallels the left and right stereo channels into mono. Many older mono records and some older stereo records might sound cleaner when you select mono. The normal position is Stereo.

Rumble Filter Switch

This reduces audio output below 40Hz. This switch is especially useful if your turntable is susceptible to feedback from your speakers and subwoofer or if you hear footsteps when you walk near the turntable. Some older records may also be pressed with audible rumble. If you are hearing low frequency "rumble" in your speakers this filter will help reduce it.

MC/MM Input Switch

This switch selects between the separate MM and MC input jacks. You can connect two turntables simultaneously if one turntable has an MC cartridge and the other turntable has an MM cartridge and use the input switch to select between them.

Zphono XRM Design Overview

The XRM gives you, the listener, the best possible opportunity to experience the full emotional content of vinyl. Independent circuits for MM and MC optimize the signal to noise ratio and sonic presentation reproduction and gives you the ability to connect two turntables or two tonearms mounted on a single turntable. A Stereo/Mono switch is found on very few phono preamplifiers. Balanced XLR outputs provide optimum rejection of external noise using common mode rejection (CMRR).

Frequently Asked Questions

Why is there no sound from the speakers?

- Ensure the front panel Input Switch is set to the correct option.
- Check that the power LED on the front panel is illuminated indicating the unit is powered on.
- Check that input and output cables are secure at both ends.

I can hear a background hum or hiss from the speakers

- Try a lower gain setting.
- Make sure that you have attached your turntable's ground wire to the ground terminal on the back panel of the Zphono XRM.
- Move audio cables and AC cords away from each other.
- Try to route audio cables and AC cords perpendicular to each other.
- Ensure that the Zphono XRM, preamp, power amp (or integrated amp) are plugged into the same wall AC outlet or power strip.
- You might find that you need to attach the Zphono XRM Ground terminal to an audio ground on your preamplifier. Contact Parasound Technical Service for specific instructions.
- If you have cable TV in your system try disconnection the incoming cable line. If the hum goes away then you may need a cable TV ground loop isolator.

The sound is distorted and too loud

- Try a lower gain setting.
- The most frequent reason for distortion is using an MM cartridge but the turntable is connected to the MC input.
- The higher voltage of the XLR balanced outputs could overload the input stage of your line level preamp or integrated amp. Try using the RCA unbalanced outputs.

The sound is faint

- Try a higher gain setting.
- The most frequent cause is using an MC cartridge but the turntable is connected to the MM input.

Should I use Balanced XLR or Unbalanced RCA connections?

We generally recommend balanced connections if your line stage preamplifier or integrated amplifier has balanced XLR inputs. The Zphono XRM's balanced outputs enable you to take full advantage of the inherent noise-rejection capability. Recording and broadcast studios use balanced connections exclusively because balanced interconnects have an inherent ability to reject external sources of noise and hum, even when components are far apart and connected by long cables. Many high-quality preamplifiers and integrated amplifiers include balanced input connections with XLR jacks for the same reasons.

Note: Balanced XLR connections are 6 dB louder because the balanced circuit carries twice the voltage. Music will sound noticeably louder than with unbalanced connections.

Do You Need Support?

Warranty Repair

Call your Parasound dealer first. If the dealer can't help you with your problem we encourage you to call Parasound's Technical Service Department at **415-397-7100**, Monday - Friday, 8am- 4pm Pacific time. We can suggest other diagnostic tests you can easily perform. If we determine that your Zphono XRM should be returned to Parasound or an Authorized Parasound Warranty Center for inspection and possible servicing, we will provide the location of a warranty center near you or shipping instructions for the unit's return to Parasound. Read your accompanying Parasound Limited Warranty carefully to understand the applicable rights and limitations. This section provides instructions for obtaining repairs, both for units covered under the Parasound Limited Warranty and for units or situations which are outside the Warranty.

The Zphono XRM is not eligible for repair under the terms of the Parasound warranty if:

1. The unit was not purchased from a Parasound Authorized Dealer.
2. You do not have the original bill of sale or sales receipt from a Parasound Authorized Dealer.
3. You are not the original owner. The Parasound warranty is not transferable.
4. Unit's serial number was removed, modified, or defaced.
5. Unit shows evidence of abuse and/or misuse.
6. Unit was modified in any way.
7. A prior repair was attempted by an unauthorized repair station.

Before You Return Any Unit to Parasound for Service

Do not ship your Zphono XRM to Parasound without a Return Authorization (RA) number provided by our technical department. Before you send your unit to Parasound, you will need to obtain a specific Return Authorization (RA) number and shipping instructions from Parasound's Technical Department. The RA number must be clearly marked on the outer carton. Use the original factory packing materials and arrange adequate insurance to cover its replacement value. You must include a copy of your purchase receipt, since this document establishes the validity of this unit's warranty. Warranty repairs are only performed by Parasound or Parasound Authorized warranty centers when your purchase receipt is from a Parasound Authorized Dealer or Parasound Authorized Reseller.

Note: Please do not ship to Parasound by the USPS (US Postal Service) - we will not accept delivery. We will also refuse delivery of units whose cartons show evidence of damage caused by inadequate packing.

Specifications

Frequency Response

20-20 kHz, +/- 0.2 dB

Total Harmonic Distortion

0.02% at 1 kHz

Signal to Noise Ratio, MM 40 dB Setting

> 94 dB, input shorted, IHF A-weighted
> 90 dB, input shorted, unweighted

Signal to Noise Ratio, MM 50 dB Setting

> 94 dB, input shorted, IHF A-weighted
> 90 dB, input shorted, unweighted

Signal to Noise Ratio, MC 50 dB Setting

> 92 dB, input shorted, IHF A-weighted
> 88 dB, input shorted, unweighted

Signal to Noise Ratio, MC 60 dB Setting

> 82 dB, input shorted, IHF A-weighted
> 80 dB, input shorted, unweighted

Inter-channel Crosstalk

> 80 dB at 1 kHz

Input Impedance

MM: 47k Ω
MC: 50-1050 Ω

Output Impedance

Unbalanced: 150 Ω
Balanced: 150 Ω per leg

Input Sensitivity at 1 kHz, 4mV Input

40 dB: 5 mV for 500mV output
50 dB: 5 mV for 1.5 Volts output
60 dB: 5 mV for 3 Volts output

Input Sensitivity at 1 kHz, 1V Output

40 dB: 10 mV for 1.0 Volt output
50 dB: 3.5 mV for 1.0 Volt output
60 dB: 1.8 mV for 1.0 Volt output

Total Gain

40 dB / 50 dB / 60 dB (unbalanced output)
46 dB / 56 dB / 66 dB (balanced output)

Rumble Filter

40 Hz high pass, 18 dB / oct.

AC Power Requirement

Standby: 0 watts
Power On: 7 watts
115 VAC or 230 VAC 50 - 60 Hz
(Selected on bottom)

Dimensions

Width: 8.5" (220 mm)
Depth: 10" (254 mm)
Depth: 12" (305 mm) - cables connected
Height, with feet: 2" (51 mm)
Height, without feet: 1.75" (45 mm), 1U

Weight

Net: 3.9 lbs. (1.8 kg)
Shipping: 6.8 lbs. (3.1 kg)

*Specifications and features subject to change or improvement without notice.
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