# PARASOUND

# <u>series</u>

# Zphono Phono Preamplifier

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PARASOUND	

Owner's Guide

# CAUTION RISK OF ELECTRIC SHOCK DO NOT OFEN

## **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

- 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.
- 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.
- 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.
- 19. **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.
- 20. Wall or Ceiling Mounting Mount the product to a wall or ceiling only as recommended.
- 21. **Heat** The product should be situated away from heat sources such as radiators, heat registers. stoves, and other products (including amplifiers) that produce heat.

# Thank You for Choosing Parasound

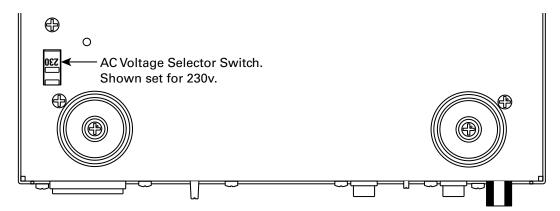
Congratulations on your purchase of this precision component and thank you for your selection of Parasound. Please take a few moments to review this manual so you may enjoy all the benefits of your new Zphono's unique features.

Please inspect the unit now and contact your Parasound Dealer promptly if you see evidence of shipping damage. Save the carton and packing inserts in case you move or in the event you need to ship your amplifier for repair. Before you proceed, locate the serial number on the rear panel or underside of the unit and record it here for future reference:

Serial #	 	 	
Purchase Date			
Parasound Dealer			
Phone Number	 	 	

# 115v - 230v AC Voltage Selector Switch

This switch is found on the chassis bottom. Make sure the 115/230V switch is set for the correct AC line (mains) voltage before you connect the Zphono's power cord and before you install it. The unit may be seriously damaged if this switch is set incorrectly.



## **Installation and Ventilation Requirements**

The Zphono generates virtually no heat and does not require special ventilation. Since it has no front panel controls it may be located near your other audio/video components, or hidden out of sight. Locate the Zphono at least a few feet away from amplifiers or receivers. Sometimes their power transformer radiate energy that will cause the Zphono to add a background "hum" that is audible at your speakers. The AC power cords of other components (and the Zphono's own AC cord) can also induce hum into the audio input and output cables. Try to keep audio cables as far as possible from AC power cords. Try to avoid running audio cables and AC cords parallel to each other. Audio cables should cross AC cords at a 90 degree angle so they're perpendicular.

# **Rack Mounting**

The Zphono occupies only half the width of a single rack space in a standard 19" equipment rack. For rack mounting, you can fasten it to another Parasound Z series model by using the Parasound SBS (Side-by-Side) mounting kit. You can also mount a single Zphono in the rack with the accessory Zblank panel. The SBS includes four rack mount bolts plus four pairs of plastic "shoulder washers." The washers are important because they insulate the Zphono front panel (and chassis) from the metal equipment rack and from the four mounting bolts. Locate these washers on both sides of the front panel before the mounting bolts are screwed into the rack rail.

#### **Rear Panel Connections and Controls**

Make input and output connections before you attach the Zphono AC cord.

Unplug the Zphono AC before making any audio connections.

#### **Input Connections**

Insert the turntable's left and right channel audio plugs into the Zphono L and R channel In (Input) jacks. Connect the bare end of the turntable's separate ground wire securely under the Zphono GND (Ground) terminal screw.

Note: If you don't have a flat blade screwdriver you can turn the GND screw with a small coin

#### Cartridge Selector Switch

Select MM for a moving magnet cartridge or MC for a moving coil cartridge.

If you are in doubt about your cartridge, try the MM switch position first.



#### **Output Connections**

Turn your control preamp or receiver's volume down all the way before making connections. This will prevent a loud burst of sound which could damage your other equipment. To be even safer, turn off the system's power first.

Connect cables from the Zphono L and R channel Out (Output) jacks to the L and R inputs on your control preamplifier or receiver. Suitable input jacks will typically be labeled Audio, CD, Tuner, Aux, or Tape Play. If your preamp or receiver has an input labeled Phono, do not use it.

Note: Eliminate any tension on the cables that could cause their plugs to become loose.

# **AC Line Cord**

Plug the Zphono AC cord into an unswitched AC outlet that remains "live." The Zphono should be left on all the time to avoid annoying turn-on transient noises. Its power consumption is negligible, so please don't worry about switching it off.

# **Background Hum**

Background hum is more likely to be a problem with a phono preamplifier than with other components because it has far higher gain to amplify the small signals from the cartridge.

# AC Polarity Switch

One of the most effective methods for reducing hum is to reverse the polarity of the unit's AC connection. However, AC plugs only fit into an outlet one way. The AC Polarity switch enables you to reverse the AC polarity without moving the AC plug. The Normal position is usually correct, but if background hum is audible you might eliminate it by moving the AC Polarity switch to Invert.

Note: Eliminating hum may require trial-and-error

- Leaving the turntable ground wire disconnected might decrease hum.
- Hum might be reduced if you connect the turntable's ground wire directly to your control preamp or receiver, instead of the Zphono.
- You may need to connect an additional ground wire between the Zphono GND terminal and the metal chassis of your control preamp or receiver.
- Experiment with how the audio cables and AC cords are positioned. Moving a cord or cable to a different position often reduces hum.

## **Maintaining your Zphono**

Your Zphono requires no periodic maintenance and has no user serviceable parts inside. To avoid the risk of electric shock, do not remove its top cover. To keep it clean use only a soft cloth and never use any solvents or abrasives. Fingerprints may be removed with a soft cloth moistened only with a few drops of water.

# **Typical Problems and Remedies**

## No sound

- Is the green indicator lit? Check that AC is live.
- Check that input and output cables are secure.
- Make sure the control preamp/receiver is switched to the correct input.
- Is the record playing? Check the tonearm's cueing device.

## **Background Hum**

- Move the AC Polarity switch to Invert.
- Move audio cables and AC cords away from each other.
- Try different routes for the audio cables and AC cords.
- Move the Zphono away from components with large power transformers.
- Connect the Zphono GND to the receiver's chassis with a separate wire.

#### Distorted Sound

- Move the MM-MC switch to MM.

#### Weak Sound

- Move the MM-MC switch to MC.

# **If You Require Assistance**

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, toll-free at **1-866-770-8324**, Monday - Friday, 7am - 5pm Pacific time. We can suggest other diagnostic tests you can easily perform. If we determine that your Zselect 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.

#### Before You Return Any Unit to Parasound for Service

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 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.

# Units Will Be Refused by Parasound Under the Following Conditions

- 1. Unit was sent without the Parasound-assigned RA number marked on the carton.
- 2. Unit was sent in an unsuitable shipping carton, likely to have been damaged in transit.
- 3. Unit has inadequate packing, unit likely to have been damaged in transit.
- 4. Unit was shipped collect for shipping charges. We do not accept collect shipments.
- 5. Unit was shipped via the US Postal Service.
- 6. Unit was sent to an address other than the address instructed by our Technical Department.

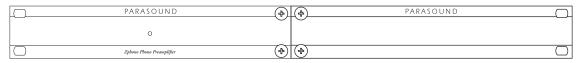
Note: The shipping address is not the same as Parasound's office address.

# **Warranty Repair**

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.

Unit is not eligible for repair under the terms of the Parasound warranty if:

- 1. Unit was not purchased from a Parasound Authorized Dealer or Parasound Authorized Reseller.
- 2. Unit's serial number was removed, modified, or defaced.
- 3. Unit shows evidence of abuse and/or misuse.
- 4. Unit was modified in any way.
- 5. A prior repair was attempted by an unauthorized repair station.



Zphono

**SBS Behind Panels** 

**Zblank panel** 

# **Zphono Specifications**

Gain at 1 kHz:

MM, 46dB; MC, 61 dB

Input Sensitivity at 1 kHz:

MM, 5 mV in for 1.1 V output MC, .9 mV in for 1.1 V output

Input Impedance:

MM, 47 k Ω

MC,  $100 \Omega$ 

Input overload:

MM, 200 mV; MC, 36 mV

**RIAA** accuracy:

0.25 dB, 20 Hz - 20 kHz

S/N ratio:

MM, 84 dB

MC, 58 dB

Power requirement:

115 V - 230 V, 60/50 Hz, 5 W

## **Dimensions**

91/2" width x 13/4" (panel only)

10" depth with connectors

2" height, with feet

241 x 254 x 50mm (44.1mm, without feet)

Rack Mount Accessories - May be Purchased Separately

SBS: Bracket and bolts to attach two Z series units side-by-side in a standard 19" equipment rack.

Zblank: 9½" x 1¾" blank panel, required to mount

a single Z series unit; Zblank kit includes one SBS.

# **Net and Shipping Weight**

Net weight: 4 lbs. / 1.8 kg Shipping weight: 6 lbs. / 2.7 kg



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