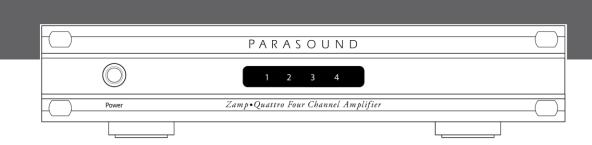
## PARASOUND



# Zamp•Quattro

Four Channel Amplifier

**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 gualified 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.

### INTRODUCTION

Congratulations on your purchase of this precision audio component and thank you for selecting Parasound. We are proud to offer you this versatile audio component, knowing that it will bring you many years of enjoyment and dependable operation. Please take a few moments to read the following instructions so you can enjoy the benefits of your new Zamp Quattro's advanced performance capabilities.

You can find details of the Zamp Quattro's specifications and advanced technology at www.parasound.com.

Enjoy.

The Parasound Staff www.parasound.com

### Keep your Purchase Receipt/Bill of Sale and Keep the Carton for Future Reference

Record the 5 digit serial number located on the bottom side of your Zamp Quattro 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 Zamp Quattro 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 Zamp Quattro's carton. If the Zamp Quattro should require warranty repair you will need its original carton and foam packing inserts to ship it. **Please do not throw away the carton or foam packing inserts.** 

Parasound Zamp Quattro Serial #	
Parasound Dealer:	
Parasound Dealer Phone Number:	
Date of Purchase:	

### 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 *unauthorized* dealers very carefully, as Parasound will not provide service under our warranty and you will need to depend entirely upon the unauthorized dealer for warranty service. A list of Authorized Parasound Dealers and detailed warranty information is available at *www.parasound.com* or you can call Parasound at (415) 397-7100 between 8:30 am 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.

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### <u>Unpacking your Zamp Quattro & Placement</u> Guidelines

### **Unpacking Your Zamp Quattro**

Carefully remove your Zamp Quattro from its shipping carton and locate its AC power cord and included accessories (3.5mm to 3.5mm trigger cable and 2.5mm to 3.5mm trigger cable). While you are unpacking your Zamp Quattro, inspect it thoroughly for possible shipping damage and tell your Parasound dealer immediately if you find any. If possible, save and store both the inner and outer cartons and—most especially—the foam packing inserts, to protect the Zamp Quattro if you have to move it or ship it. This would be a good time to make a copy of your sales receipt to store with the Zamp Quattro's original packing.

Again: Do not throw away the Zamp Quattro carton or foam packing inserts.

#### Placement Guidelines

Install your Zamp Quattro away from heat sources such as heating ducts, radiators, or other heat-producing components. Always position the Zamp Quattro horizontally. Observe the following ventilation guidelines when installing the Zamp Quattro in an equipment rack or any other enclosed space:

You should never install the Zamp Quattro in an unventilated equipment cabinet or compartment because hot air will not exhaust adequately to prevent overheating. Air won't often circulate adequately in a cabinet or enclosure whose front and back sides are open; pockets of intense heat can still develop around any heat-producing equipment. Allow a few inches of empty space on each side and above the unit and try to avoid crowding or stacking the Zamp Quattro tightly between other components. A ventilation fan is also recommended where other heat-producing equipment must be mounted close to the Zamp Quattro.

If you're installing the Zamp Quattro yourself, use input and output cables that are long enough to leave at least two feet of slack; that will enable you to pull the Zamp Quattro out of a cabinet to check or to change connections without inadvertently disconnecting cables. If you're putting the Zamp Quattro inside a cabinet, it needs a space that's at least 11 inches wide so you'll be able to turn it around for access to its rear panel connections.

### **Rack Mounting Your Parasound Zamp Quattro**

The Zamp Quattro 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 model by using the Parasound SBS (Side-by-Side) mounting kit (sold separately). You can also mount a single Zamp Quattro in the rack with the accessory Zblank panel extender. The SBS includes four rack mount bolts plus four pairs of plastic "shoulder washers." The washers are important because they insulate the Zamp Quattro front panel (and chassis) from the metal equipment rack and from the four mounting bolts. Place these washers on both sides of the front panel before the mounting bolts are screwed into the rack rail.

	PARASOUND	+ +	PARASOUND	
	1 2 3 4			
Power	Zamp•Quattro Four Channel Amplifier	(+) (+)		

(Zblank extender panel Shown)

**Note:** Tighten each bolt just enough to keep the unit secure in the rack to avoid deforming the shoulder washers. Eliminating metal-to-metal contact reduces the likelihood of creating a ground loop that might introduce hum into your system.

### AC Mains Voltage

Check the 115V/230V rear panel markings (located below the AC inlet) before plugging in the Zamp Quattro's AC power cord!

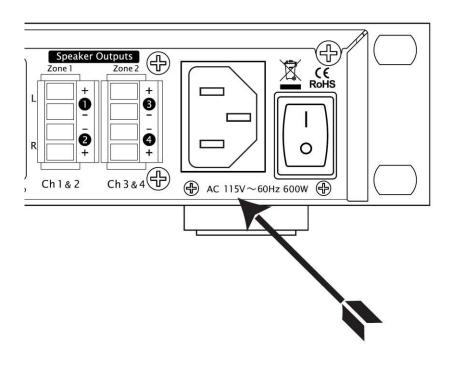
The Zamp Quattro has been set by the factory to either 115V or 230V mains operation. The unit can be seriously damaged if it is plugged into the incorrect voltage. The operating voltage can only be changed by a qualified technician.

In the 115V position the Zamp Quattro can safely operate with AC Line voltages between 110V-120V which is correct for North America, including Mexico, and also in Taiwan. In some countries, such as Brazil, AC voltages are different by region. Most other countries require setting it to 230V. With the 230V setting the Zamp Quattro can operate safely with AC line voltages between 220V-240V. If you are not certain of your local AC voltage call your dealer. The following website will also be helpful:

http://en.wikipedia.org/wiki/Mains electricity by country#Voltage ranges

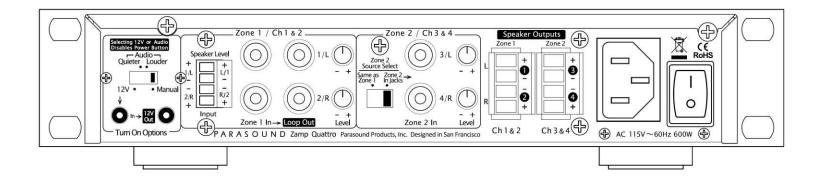
Note: A Zamp Quattro that has been damaged by connection to the incorrect AC voltage is not covered by the Parasound warranty.

### **AC Voltage Marking:**



### Rear Panel Audio Connections

Always disconnect the AC cords to your Zamp Quattro and preamplifier before plugging in or unplugging any connections. Inserting or removing a preamp to power amp interconnect cable while the preamp or power amp 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.



### **Audio Input Connections**

### Channels 1 and 2 Input RCA Jacks (Zone 1)

These are standard line level audio Inputs for zone 1. Connect these jacks to the output jacks on your preamp, whole-house audio controller or the zone outputs of your AV receiver.

### Channels 1, 2 Speaker Level Input

The speaker level inputs enable the Zamp Quattro to connect to any audio receiver even if it lacks preamp output jacks. This is a high impedance input so the Quattro can connect to any receiver or integrated amplifier's speaker terminals without degrading the sound quality of the speakers it drives. Audio connected to the Speaker Level input connector block is internally routed to channels 3 and 4 when you set the Zone 2 Source Selector switch to Same as Zone 1. Speaker level audio is also routed to the RCA Loop Out jacks which provide a line level output to drive an additional amplifier.

**Note:** The speaker connector blocks accept bare wires up to AWG16. The wire strands should be twisted tightly and/or tinned with solder to prevent stray strands that could short circuit the amplifier. The Speaker Level input consumes a negligible fraction of a watt of your receiver's power output so large gauge speaker wire provides absolutely no performance advantage.

**Note:** This speaker level input is attenuated and connects in parallel with the RCA input jacks. It is therefore not intended as an input selector. Connect either the RCA input jacks or the Speaker level inputs; do not connect both at the same time.

#### Channels 3, 4 Input RCA Jacks (Zone 2)

These are standard line level audio Inputs for zone 2. Connect these jacks to the output jacks on your preamp, whole-house audio controller or the zone outputs of your AV receiver.

### **Audio Output Connections**

### Channels 1 and 2 Loop Out RCA Jacks

These jacks enable the audio input connected to channel 1 and 2 jacks to pass on to an additional amplifier. Both the Speaker Level input and channels 1 and 2 line level inputs are present at the Loop Outputs jacks at all times. The same volume level of the signal present at the 1 and 2 inputs jacks will be present at the Loop Out Jacks. The Channel 1 and 2 Level controls do not affect the Loop Output level.

### **Speakers Output for Channels 1 and 2 (Zone 1)**

Detach the green connector block by pulling it away from the Zamp Quattro rear panel. This makes attaching speaker wire far more convenient. Connect the appropriate + and – terminals to the corresponding + and – wires from your speakers.

Note: The minimum speaker load impedance is 4 ohms.

### **Speakers Output for Channels 3 and 4 (Zone 2)**

Detach the green connector block by pulling it away from the Zamp Quattro rear panel. This makes it much easier to handle and attach the speaker wire. Connect the appropriate + and – terminals to the corresponding wires from your speakers.

**Note:** The minimum speaker load impedance is 4 ohms.

**Note:** The speaker connector blocks can accept bare wires as large as AWG12. The ends of the wires should be twisted tightly and/or tinned to prevent stray wire strands that could short circuit the amplifier.

warning: Never combine the Ch 1 negative (-) connection to the Ch 2 negative (-) connection! Never combine the Ch 3 negative (-) connection to the Ch 4 negative (-) connection! The Zamp Quattro is not compatible with speaker wiring where two speakers share the same negative wire. Combining the negatives of any channels could seriously damage the amplifier! Please note that some speaker selectors combine the negative connections. This type of speaker selector is not compatible with the Zamp Quattro.

### Rear Panel Controls

### Zone 2 Source Select Switch

This switch determines which input jacks will be played in Zone 2 (channels 3 and 4).

The two options are:

Same as Zone 1: Both zones play the same audio. Whatever audio is present at the Zone 1 RCA input jacks or at the Speaker Level Input will also be played in Zone 2. This is "internal looping" or sometimes referred to as a Bus. Channel 3 and 4 level controls are always independent from Channels 1 and 2 level controls.

**Zone 2 In Jacks:** Zone 2 plays audio that is connected to the Zone 2 (Channel 3 and 4) RCA Input Jacks.

### Channel Level Controls

Each of the four channels has its own level control. Fully counter-clockwise is all the way off and no sound will be heard from that channel. Fully clockwise is maximum volume. These controls can be used to match the volume level of different speakers throughout an installation. If for some reason you have a high level of background noise (or hiss) heard in the speakers you can also use these Level controls to cut down on this background noise by slowly turning them down until the noise is gone.

**Note:** By adjusting the level controls you can limit the maximum volume in a zone regardless of how high someone adjusts the preamp or whole-house controller volume. This is also useful if you use passive wall-mounted volume controls. By reducing the Zamp Quattro from the maximum output level you can also reduce the amount of power that will be wasted when you turn down the wall mounted volume control.

### **Turn On Options Switch**

For convenience, there are three ways the Zamp Quattro can be turned on and off:

- Manually, by pressing the Power button on the front panel.
- · Automatically by audio, when an audio signal is present at any of the audio Input jacks.
- Automatically by 12V, when a suitable trigger voltage is applied to the 12V input jack.

**Note:** When either automatic turn on option is selected the front panel Power button is disabled so that power on/off is determined solely by the triggering preamp, receiver or active audio signal.

#### **Manual Position**

When the Turn On Options switch is in its Manual position the Zamp Quattro must be turned on and off manually by pressing the Power button on its front panel every time you wish to use your audio system.

### Audio Position (Automatic on/off)

When the Turn On Options switch is set to one of the two Audio positions, the Zamp Quattro will be turned on only when an audio signal is present at any of the Input jacks or the Speaker Level Input. After the audio signals cease the Zamp Quattro will remain on for about 8 minutes before shutting off. This prevents unintended turn-off during pauses in your music or movies.

**Note:** All four channels of the Zamp Quattro will always power up together, there is no independent power control for Zone 1 and Zone 2. There are two Audio settings:

**Quieter:** This is the more sensitive setting. This will automatically turn the amp on with a very low level audio signal. This corresponds to about 1mv of voltage. In most cases this will be the better setting to use. If for some reason the amp never turns off you may have some noise in your system that is false triggering the turn on circuit. In this case you should use the Louder setting.

**Note:** If you need the Zamp Quattro to turn on at an even lower volume level, simply turn down the Level controls of all channels. Start with the level controls at 12 o'clock and see if the volume level is low enough when the amp turns on.

**Louder:** This is the less sensitive setting. This setting requires a slightly louder audio signal to automatically turn the amp on. This corresponds to about 10mv of voltage. You should first try the Quieter setting. If for some reason the amp never turns off when set to Quieter then you might have a large amount of background noise (or hiss) in your system, if this is the case then you can use the Louder setting.

**Note:** The Audio position of the Turn On Options switch disables the front panel Power button.

**Note:** When set to the Audio position, the Zamp Quattro will remain on for about 8 minutes after the music has stopped before shutting off. This prevents unintended turn-off during pauses in your music or movies.

### 12V Position (Automatic on/off)

When the Turn On Options switch is set to its 12V position, the Zamp Quattro is turned on and off only with an external +9 V to + 12 V voltage from your preamp, AV receiver or home controller. When the external voltage ceases the Zamp Quattro will turn off immediately.

**Note:** All four channels of the Zamp Quattro always power up together. There is no independent on-off control for Zone 1 and Zone 2.

### 12 Volt Jacks

#### 12V In Jack

The Zamp Quattro 12V input uses a 3.5mm mini jack (mono). To use the 12V trigger, insert the trigger wire plug into this jack and the plug at the wire's other end into the AV receiver or preamp's 12V output jack. We have included a 3.5mm mini plug to 3.5mm mini plug trigger wire as well as a 3.5mm mini plug to 2.5mm sub-mini plug trigger wire.

**Note:** If the controller's trigger output is a + and – terminal, you can cut the 3.5mm plug off one end of the included trigger wire and attach the bare wires to these terminals. The lead with the white stripe on it corresponds to the plug's tip and the unmarked lead corresponds to the sleeve of the plug. The trigger plug tip is + (positive) and its sleeve – (negative).

**Note:** The Zamp Quattro trigger circuit draws a negligible 10 mA. The total load on your preamp's trigger output(s) is the sum of the trigger current drawn by each of the components you've looped together. Check the maximum capacity of your AV receiver, processor or home controller's trigger outputs so you do not overload them by connecting too many power amplifiers. Typical ratings are 50mA to 100mA.

### 12V Out Jack

The 12 volt output jack on the Zamp Quattro is an active output (not just a looping output) so it is live whenever the Zamp Quattro is on, even it was turned on manually or by an audio signal. Because this is an active output you can use the Zamp Quattro to trigger additional equipment. For example if the Zamp Quattro's Turn On Option switch was set to Audio, when the music or audio signal starts the Zamp Quattro will turn on and immediately supply 12V to the 12V out jack. This could be used to trigger additional amplifiers or other equipment such as the Parasound Zbreeze Cooling Fan.

### 3.5mm vs. 2.5mm jacks

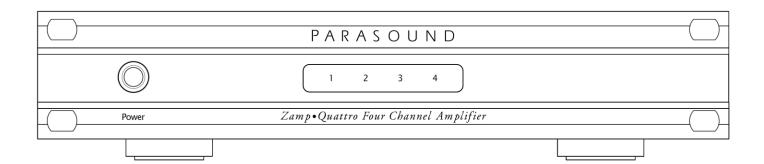
Some other Parasound power amplifiers and preamplifiers might use 2.5mm "sub-mini" trigger jacks. To use the Zamp Quattro with products that use a 2.5mm jack we have included a trigger wire with a 3.5mm plug at one end and a 2.5mm plug at the other end.

NOTE: If the rear panel Turn On switch is set to Audio or 12V the front panel Power button is disabled.

### **AC Line Power Cord**

Connect your digital sources and analog preamplifier before you plug in the AC cord. The power cord supplied with your Zamp Quattro is a IEC type AC cord. The AC ground potential can vary between your AC outlets, the result can be an audible 60Hz (or 50Hz) hum heard in your speakers. To help avoid this problem plug your Zamp Quattro into the same AC wall outlet, power strip or line conditioner as all your other audio equipment.

### Front Panel Controls and Display



### Front Panel Operation

#### **Power Button**

Pushing the Power button turns on the Zamp Quattro. After turning on the Zamp Quattro the 4 channel (1,2,3,4) indicators will illuminate green. Pushing the Power button again turns off the Zamp Quattro. The Zamp Quattro does not have a standby indicator.

NOTE: If the rear panel Turn On switch is set to Audio or 12V the front panel power button will be disabled.

### Channel Indicators (1, 2, 3, 4)

When the Zamp Quattro is powered on the channel number indicators will illuminate one of two colors:

Green: Indicates normal operation. All channels are powered up and ready to play.

**Red:** Indicates that one or more of the channels is in its protection mode. Depending on the music content and volume levels the indicators may alternately flash green and red. This also indicates a problem. Causes for the front panel indicators to illuminate red:

- The speaker outputs are short circuited either at the amplifier, at the speaker or the speaker wire has been compromised (negative to positive).
- The negative terminals of the speaker outputs have been combined (negative to negative)
- Too many speakers are attached and the impedance has dropped below 3 Ohms
- The unit has overheated
- The AC line voltage has exceeded the maximum allowed (132V when set for 115V or 264V when set for 230v, depending on your region's mains voltage)
- The amplifier has been damaged

### **Checking for Shorts on the Speaker Outputs**

If your front panel indicators are illuminated red or alternate between green and red this indicates a problem. The first step is to immediately turn off the amp. The most likely cause would be shorted speaker connections. To check for this type of fault unplug both the Zone 1 and Zone 2 green speaker connector blocks. Now turn the amp back on. If the front panel lights now illuminate green then please check your speaker wires and attached speakers for short circuits.

### Frequently Asked Questions

### Unit will not turn on

- Check the setting of the Turn On Options switch. (The front panel Power button will be disabled if the switch is set to Audio or 12V).
- If using Audio Turn on, try increasing the sensitivity of the audio trigger by turning the Turn on Option switch to the "Quieter" position. If this does not work, please set the Turn On Switch to Manual and now try using the front panel. Does the amp now turn on?
- Check that the AC power is live.

### When using the audio turn on trigger the volume comes on too loud

- Make sure you are using the Quieter setting.
- Turn down the Level controls for all the channels (12 O'clock is a good place to start).
- See page 10 for details.

### Front panel indicators are red or flashing green and red

- Check Speakers and speaker wires for shorts.
- Ensure that you have not combined the negative (-) terminals of any of the speaker outputs.
- See page 12 for details.

### Why is there no sound from my speakers?

- Check that input and output cables are plugged in all the way at both ends.
- Are your preamplifiers and all power amplifiers turned on?
- Is the correct input selected on the preamplifier?
- Is there an audio source playing (CD player, Tuner, etc.).

### I can hear a hum or buzzing noise from my speakers

- Cable TV is the most common source of hum. If you have a cable TV box connected to your audio system temporarily remove the cable from the Cable TV box. If the hum goes away the problem is the cable TV ground. You will need a Cable TV ground isolator which is an inexpensive device that attaches between your TV cable and the Cable TV box.
- Light Dimmers can cause noise in your audio. Try turning lights that are controlled by dimmers all the way off. If the hum goes away the problem is the effect the dimmers have on your AC power. A line conditioner might help.
- Ground Loops are also a common cause of hum and buzzing noise. Finding a ground loop is a process of elimination. Unplug your source components one at a time. When the hum goes away you've identified the source of the ground loop. You might be able to stop the hum by attaching a wire from the chassis of the offending component to the chassis or ground screw of your preamplifier.

### Maintaining Your Zamp Quattro

Your Zamp Quattro requires no periodic maintenance and has no user serviceable parts inside. To avoid risk of electric shock do not remove the top cover. To keep it clean use only a soft cloth moistened with a few drops of clear water or window cleaner. Never use any solvents or abrasives.

### Are You Having Difficulty?

### 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 Zamp Quattro 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.

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

- 1. 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

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.

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 and Details

### Power Output - All Channels Driven

50 watts RMS x 4, (20 Hz - 20 kHz,  $8\Omega$ ) 90 watts RMS x 4, (20 Hz - 20 kHz,  $4\Omega$ )

### Frequency Response

10 Hz - 60 kHz, +0/-3 dB

#### **Total Harmonic Distortion**

< .05 % at typical listening levels < 1 % at full power

#### Interchannel Crosstalk

70 dB at 20 kHz

#### Input Sensitivity:

700mv = Full output (50 Watts @ 8  $\Omega$ ) Total Gain = 29 dB (Level controls set to Maximum)

#### S/N Ratio

> 112 dB, input shorted, IHF A-weighted

### DC Trigger Requirements

+9 Vdc to +12 Vdc, 2 mA

### Audio Trigger Requirements

1 mV AC (Quieter setting) 10 mV AC (Louder setting)

#### AC Power Requirement:

600 Watts Maximum 50 Watts Typical 15 Watts Idle

0.5 Watts Standby

110-130 VAC 60 Hz or 220-240 VAC 50 Hz

Note: AC mains voltage is set only by qualified electronics technician.

#### **Dimensions:**

Width (Black): 9.5" (241 mm) – Rack Mount Face Plate Width (Silver): 8.5" (220 mm) – Non-Rack mount Face Plate

Depth: 10" (254 mm)

Height, with feet: 2" (51 mm)
Height, without feet: 1.75" (45 mm)

### Weight:

Net: 4.5 lbs (2.0kg) Shipping: 7.5 lbs (3.4kg)

### Rack Mount Accessory (Black Zamp Quattro only):

SBS: Side by Side Mounting bracket, purchased separately

Zblank: Panel extender, purchased separately

(Silver Zamp Quattros cannot be rack mounted)

Specifications and features subject to change or improvement without notice.

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We invite you to visit www.parasound.com for the most up-to-date information on your unit and to find out about other Parasound products. Learn why Parasound has been a quality and value favorite of magazine reviewers, sound professionals and listeners like you since we were founded in 1981.









