PARASOUND

PARASOUND

Protect   L   R   Hi-Temp

Power   Ω   *Zamp v.3 Zone Amplifier*

Zamp v.3
Zone Amplifier

OWNER'S GUIDE

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.

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.

www.parasound.com

Congratulations and thank you for your purchase of this precision Parasound audio component. The Parasound Zamp v.3 Zone Amplifier is the third generation of one of the world's most popular and proven audio amplifiers. It has been designed for a wide variety of applications, including multi-room, multi-zone installations, desktop audio, PC-Mac audio, bedroom or den systems. The versatility of the Zamp v.3 allows many connection and configuration options, so please be sure to read this manual thoroughly before you begin installation.

Unpacking

Carefully unpack your Zamp v.3 and these accessories:

- Detachable AC power cord
- DC trigger wire with a mono 2.5 mm sub-mini plug at each end
  Note: This is for use with many Parasound preamplifiers
- DC trigger wire with a 3.5 mm (⅛") mini plug at one end and mono 2.5mm sub-mini plug at the other
  Note: This is for use with many other brands of preamplifiers,controllers and AV receivers and the older Parasound models C 1, C 2, 7100.

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 five digit serial number on the rear panel or underside of the unit and record it here for future reference:

OWNERSHIP REFERENCE INFORMATION	
Parasound Serial Number:	
Date of Purchase:	/ /
Name of Dealer:	
Dealer Street Address:	
Dealer Phone:	( ) -

115v–230v AC Voltage Selector Switch

Make sure the 115/230V switch is set for the correct AC line (mains) voltage before you connect the Zamp v.3's power cord and before you install it.

The 115/230v switch is found on the chassis bottom. The 115V position of this switch is correct for North America, Brazil; most other countries require setting it to 230V.

Note: The Zamp v.3 may be seriously damaged if this switch is set incorrectly.
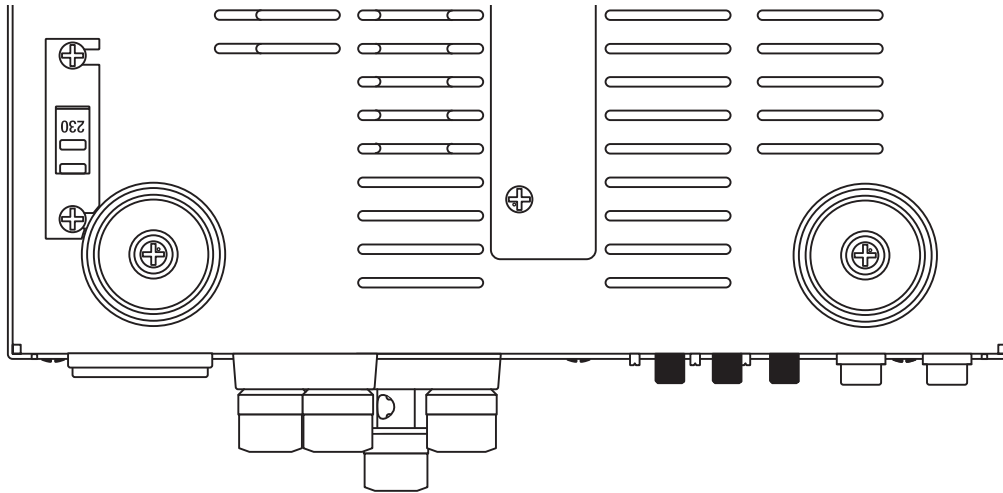
Installation and Ventilation Requirements

Install your Zamp v.3 away from heat sources such as heating ducts, radiators, or other heat-producing components. Always position the Zamp v.3 horizontally.

Observe the following ventilation guidelines when installing the Zamp v.3 in an equipment rack or any other enclosed space:

You should never install the Zamp v.3 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. Therefore, a ventilation fan is highly recommended.

Allow a few inches of empty space on each side and above the unit and try to avoid crowding or stacking the Zamp v.3 tightly between other components. A ventilation fan is also recommended where other equipment must be mounted close to the Zamp v.3.

Do not place the unit on carpeting or any other material that could obstruct air flow into the ventilation holes in its chassis bottom.

Rack Mounting

The Zamp v.3 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 Zamp v.3 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 Zamp v.3 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.
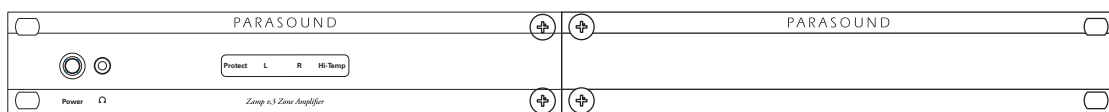
Zamp v.3 **SBS Behind Panels** **Zblank panel**

Connection Precautions

Disconnect the AC cord before making or changing any input, trigger, or speaker wire connections. Make sure there is no strain or tension on any wires that could cause them to pull loose.

Audio In Jacks

Connect the cables from your preamplifier or controller's output jacks to the Zamp v.3's L and R audio In jacks.

Loop Jacks

The L and R Loop jacks are convenient output connections for an additional power amplifier. These jacks eliminate the need for "Y" connectors to drive both your Zamp v.3 and another amplifier from the same source.

R and L Level Knobs

You can adjust the gain for each channel to achieve the lowest noise and widest dynamic range in your system or installation. Start with the 12 o'clock mid-position of each knob on the Zamp v.3 and turn each one clockwise for higher gain or counter-clockwise for lower gain.

Note: We encourage you to experiment with different gain settings for your preamp or controller and the Zamp v.3 to find those gain settings where your system's background noise is lowest. Among sound professionals this procedure is known as "gain staging."

Speaker Connections

Each pair of five-way speaker terminals accepts bare speaker wires up to AWG 12, wires terminated with ¼" spade lugs, and single or dual banana plugs which are ¾" (19mm) apart.

If you use bare wires, remove only enough insulation, about ½" (12mm) for each exposed bare wire to insert through the small hole in the side of the binding post. Before inserting a bare wire, twist the strands tightly between your fingers to prevent strays that might touch the chassis or another terminal and cause a short circuit. If you have soldering experience you may want to "tin" the stripped bare wire with solder for a cleaner termination and to prevent the wire from oxidizing.
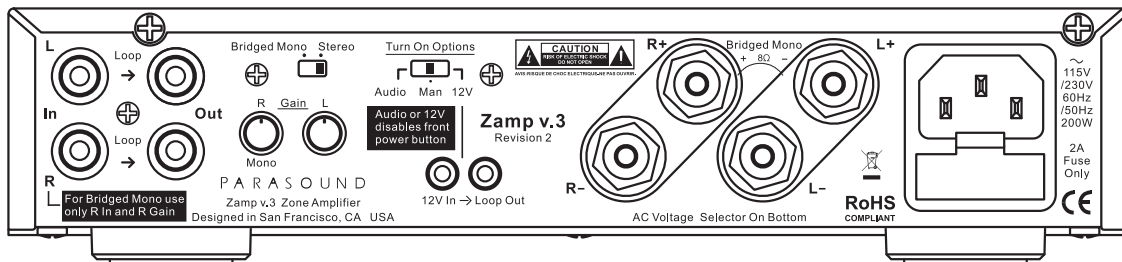
Correct Speaker Polarity is Important

As you connect the speaker wires, you can see that the insulation on one of the two wires in each pair has either printing or a raised ridge. The marking lets you know which wire you connected to the positive speaker terminal at its other end.

Make sure the + wire you attach to each Zamp v.3 + speaker terminal is attached to the + terminal of the speaker for that channel.

Bridged Mono/Stereo Switch

The Zamp v.3 power should always be turned off before moving this switch.

For normal operation this switch must be set to the right in its Stereo position.

For bridged mono operation, move this switch left to its Bridged Mono position.

Note: Stereo sound will be faint and very distorted if you accidentally leave this switch in its Mono position.

Bridged Mono/Stereo Operation

You should not use a speaker with an impedance that is less than 8 Ω for Bridged Mono operation. In mono, the Zamp v.3 "bridges" the R channel to amplify the positive half of the audio signal and the L channel to amplify the negative half of the audio signal. In effect, each channel "sees" only half of the speaker's rated impedance, so that an 8Ω speaker in Bridged Mono is only a 4Ω load and a 4Ω speaker in Bridged Mono is only a 2Ω load. The Zamp v.3 is not designed to operation into loads that are less than 4Ω at any time.

Warning: When used in Bridged Mono mode, the Zamp v.3 should not be used with a speaker with an impedance of less than 8 Ohms. Running the Zamp bridged into a 4 Ohm speaker will cause the Zamp v.3 to overheat and could result in serious damage.

### *Mono Input and Speaker Connections*

1. Turn the unit off and remove the AC cord.
2. Connect the single cable from the preamp or controller to the R channel audio In jack.
3. Set the Bridged Mono/Stereo switch to the Bridged Mono position.
4. Connect the positive lead of the speaker wire to the red R + channel speaker terminal.
5. Connect the negative lead of the speaker wire to the red L + channel speaker terminal.
   Note: The R + and L + mono hookup terminals are spaced too far apart to accept a dual-banana plug.
6. Do not connect anything to either channel's "–"(negative) speaker terminal.
7. Reconnect the AC cord.

Turn On Options

Turn On Options Switch

For your convenience, there are three ways the Zamp v.3 can be turned on and off.

- Manually, by pressing the Power button on the front panel.

- Automatically, when a suitable trigger voltage is applied to its 12V In (input) jack.

- Automatically, when an audio signal is present at the L or R channel audio Input jacks. When either automatic turn on mode is selected the Zamp v.3 front panel Power button is disabled so that on/off is determined solely by the triggering preamp or system controller.
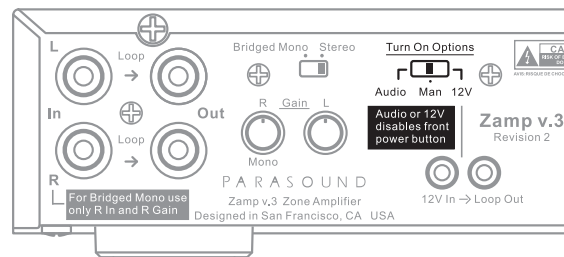
Audio Position

When the Turn On Options switch is set to the left in its Audio position, the Zamp v.3 will be turned on whenever an audio signal of at least 1mV is present at its Left or Right Input jacks. After audio signals cease, the Zamp v.3 will remain turned on for about ten minutes. This prevents it from shutting down during pauses in the music. The Audio position of the Turn On Options switch also disables the front panel Power button.

Note: Previous Zamp v.3s included a sensitivity adjustment control for the audio auto turn on. This version has an improved circuit that makes this adjustment unnecessary.

Note: When the Turn On Options switch is set to Audio the Zamp v.3 will turn itself on immediately when you connect its AC cord, even without any audio signal present. This is normal.

Note: If the Zamp v.3 is driving only the sub, surround, center, or rear channels you will achieve more consistent automatic turn on by using the 12V DC trigger. At the beginning of most films the sub, center and surround levels are lower than the minimum level required by the Audio sensing circuit.

12V In Jack

The Zamp v.3 12V input uses a 2.5mm sub-mini jack.

To trigger the Zamp v.3, insert the trigger wire plug into this jack and the plug at the wire's other end into the preamp or controller's trigger output jack.

Note: If the preamp or 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.

Note: If the trigger voltage source is DC, the trigger plug tip must be + (positive) and its sleeve "–" (negative).

12V Trigger Out Jack

The Trigger Out jack lets you loop or "daisy-chain" the incoming trigger voltage to an additional Zamp v.3 or other component.

Note: The Zamp v.3 trigger circuit draws a negligible 15 mA from the controller. The total load on your controller'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.

AC Power Connections and AC Grounding

If possible, plug your Zamp v.3 into the same AC outlet that your accompanying audio components (especially the system controller) are plugged into. The ground potential between different AC outlets may be higher or lower, resulting in audible hum.
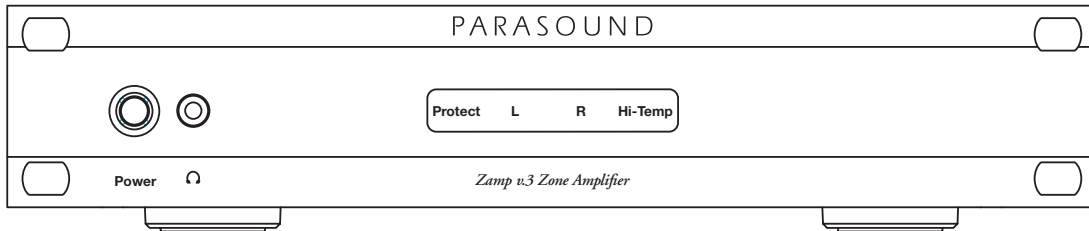
Power Button

Press the Power button once to turn the Zamp v.3 on, press it again to turn it off.

Note: The Power button is inoperative when the Turn On Options switch is set to Audio or 12V.

L and R Channel Indicators

L and R will illuminate green when the Zamp v.3 is turned on and is operating normally. The green L or R indicator will not light if the fault condition is only in that channel. Neither L or R will illuminate if there is a general fault or if the temperature is too high.

```
                           P A R A S O U N D

   ◎  ◎              Protect    L    R    Hi-Temp


      Power    ⌂              Zamp v.3 Zone Amplifier
```

Protect Indicator

Protect will illuminate red when the Zamp v.3 has experienced either an internal or external fault condition which has also activated its protection circuit to prevent internal damage.

Note: It is normal for Protect to flash on for 1 – 2 seconds after the unit is turned on.

Hi-Temp Indicator

Hi-Temp will illuminate red when the Zamp v.3 reaches its maximum safe operating temperature. If the heat persists the unit will soon shut itself off for protection and will remain off until the temperature drops. If Hi-Temp appears, the unit has been over-driven at too high a listening level and/or too low impedance speaker load or has not been provided with sufficient ventilation.

Headphone Jack

The headphone jack on the front panel accepts a ⅛" (3.5 mm) plug. Its high current headphone circuit will easily drive headphones with an impedance of 8 Ω or higher. The output to the speaker terminals is disconnected when you plug headphones into the Zamp v.3.

Maintaining Your Zamp v.3

Your Parasound Zamp v.3 power amplifier requires no periodic maintenance other than to receive an occasional flattering remark. It has no user-serviceable parts inside. To avoid the risk of electric shock, do not remove its top cover. The exterior can be cleaned with a soft cloth pre-moistened only with a few drops of water or glass cleaner.

No sound

- Check that AC is live.
- Check that input cables and speaker wires are secure at both ends.
- Make sure the control preamp/receiver is switched to the correct input.
- Is the unit on? Check setting of the Turn On Options switch.
- Is the Hi-Temp or Protect (or both) illuminated? Check for excessive temperature, short circuited speaker wires, low impedance speaker load, and inadequate ventilation to remove heat.

Background Hum

- Move audio cables and AC cords away from each other.
- Try different routes for the audio cables and AC cords.
- Make sure insulating shoulder washers are used if unit is rack mounted.
- Make sure all of your components are plugged into the same AC outlet.

Distorted and Weak Sound

- Check the position of the Bridged Mono-Stereo switch. It must be in Stereo to play stereo.
- Make sure the load impedance is not below 4 ohms.
- Make sure the gain of the preamp or controller is not set too low.
- Make sure the gain controls of the Zamp v.3 are not set too low.

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, **415 397-7100**, Monday–Friday, 7am–5pm Pacific time. We can suggest other diagnostic tests you can easily perform. If we determine that your Zamp v.3 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 US Postal Service. **We do not accept packages from the US Postal Service.**
6. Unit was sent to an address other than the address instructed by our Technical Department.

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.

Continuous Power Output—Stereo
45 watts RMS x 2, 20 Hz–20 kHz, 8 Ω, both channels driven

60 watts RMS x 2, 20 Hz–20 kHz, 4 Ω, both channels driven

Continuous Power Output—Mono Bridged
90 watts RMS, 20 Hz–20 kHz, 8 Ω minimum impedance of 8 Ohms

Current Capacity
12 amps peak per channel

Frequency Response
5 Hz–100 kHz, +0/-3 dB, 1 watt

Total Harmonic Distortion
0.07%, at 8 Ω, 0.1% at 4 Ω, full output
0.02%, average listening levels

IM Distortion
0.05 %

Transient IM Distortion
Not measurable

Slew Rate
90 V/µsecond

S/N Ratio
113 dB, input shorted, IHF A-weighted

Input Impedance
33 k Ω

Input Sensitivity
0.6 V input for full-rated (19.8 V) output

Dynamic Headroom
1.5 dB

Inter-Channel Crosstalk
80 dB at 1 kHz; 60 dB at 20 kHz

Damping Factor
400 at 20 Hz

Audio Trigger Sensitivity
1 mV

12V Trigger Current Requirement
15 mA

AC Power Requirement
110–120 V / 220–240 V, 50–60 Hz
1 watt standby; 220 watts full output

Dimensions
9½" Wide

10" Deep with connectors

2" High with feet, 1¾" panel only

241 x 254 x 50mm, 44.1mm panel only

Net and Shipping Weight
6.65 lbs., 3 kg; 9 lbs., 4.1 kg

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.

Notes:

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.

PARASOUND®