

O W N E R ' S M A N U A L



PARASOUND

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*Zpre Zone Preamplifier*

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## Table of Contents

Front Panel, Rear Panel, and Remote Control Drawings.....	4
Introduction.....	5
Unpacking, Installation and Rack Mounting .....	5
Making Connections to Your Zpre .....	5
Operating Your Zpre.....	8
Maintaining Your Parasound Zpre.....	10
In Case of Trouble.....	10
Specifications .....	11

### **Zpre Zone Preamp Features**

Four Audio Inputs  
Four Video Inputs  
Automatic Input Priority Switching  
Two Audio-Video Outputs  
Fully Remote Controllable  
External Infrared Remote Control Input  
Remote Control Also Operates TDQ-150 Tuner  
RS-232 Serial Connection  
DC Trigger Input  
DC Trigger Loop Output  
Bass and Treble Controls  
Motorized Volume Control  
Low Noise Circuit  
High Current Power Supply  
Relay Muting  
Gold-Plated RCA Jacks  
Removable IEC AC Cord

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## Important Safety Instructions



Save these instructions for future use

This triangle alerts you to the dangerous voltages inside that may be a shock hazard.



This triangle alerts you to important operating and maintenance instructions in this manual.

- ✓ Always use with the correct line voltage. Refer to the manufacturer's operating instructions for power requirements. Be advised that different operating voltages may require the use of a different line cord and/or attachment plug.
- ✓ Do not install the unit in an unventilated rack, or directly above heat producing equipment such as power amplifiers. Observe the maximum ambient operating temperature listed in the product specification.
- ✓ Slots and opening on the case are provided for ventilation; to ensure reliable operation and prevent it from overheating, these openings must not be blocked or covered. Never push objects of any kind through the ventilation slots. Never spill a liquid of any kind on the unit.
- ✓ Never attach audio power amplifier outputs directly to any of the unit's connectors.
- ✓ To prevent shock or fire hazard, do not expose the unit to rain or moisture, or operate it where it will be exposed to water.
- ✓ Do not attempt to operate the unit if it has been dropped, damaged, exposed to liquids, or if it exhibits a distinct change in performance indicating the need for service.
- ✓ This unit should only be opened by qualified service personnel. Removing covers will expose you to hazardous voltages.
- ✓ Adhere to all warnings on the unit and in the operating instructions.
- ✓ Take precautions not to defeat the grounding or polarization of the units power cord.
- ✓ Do not overload wall outlet, extension cords or integral convenience receptacles, as this can result in a risk of fire or electrical shock.
- ✓ Route power supply cords so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to cords at plugs, convenience receptacles, and the point at which they exit from the unit.
- ✓ The unit should be cleaned only as recommended.

### Communications Notice

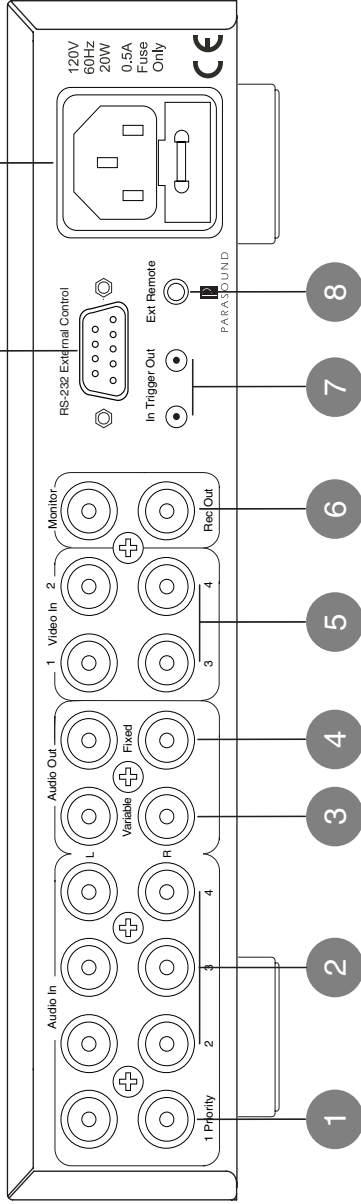
This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designated to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- ✓ Reorient the television receiving antenna
- ✓ Relocate the AVC-2500 away from the television
- ✓ Plug the AVC-2500 into a different AC outlet so that the AVC-2500 and television are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to identify and Resolve Radio/TV Interference Problems." This booklet is available from the U.S. Government printing office, Washington, DC 20402, Stock No.004-000-00345-4.

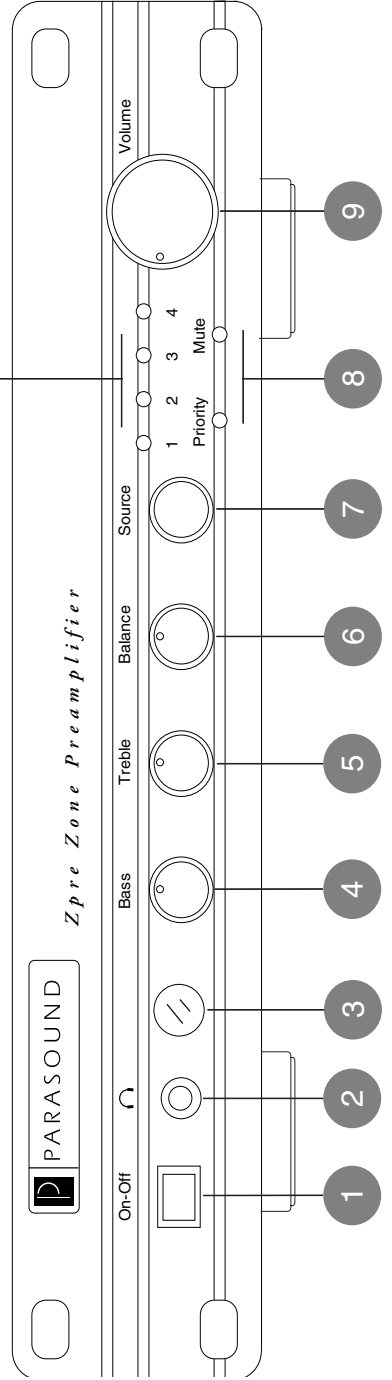
**Zpre Rear Panel Connections**

1. Audio 1 - Priority Input Jacks
2. Audio Input 2 - 4 Jacks
3. Variable Main Output Jacks
4. Fixed Output Jacks
5. Video 1 - 4 Input Jacks
6. Video Output Jacks
7. DC Trigger In / Loop Out Jacks
8. External Remote Input
9. RS-232 Port
10. IEC-65 AC Connector

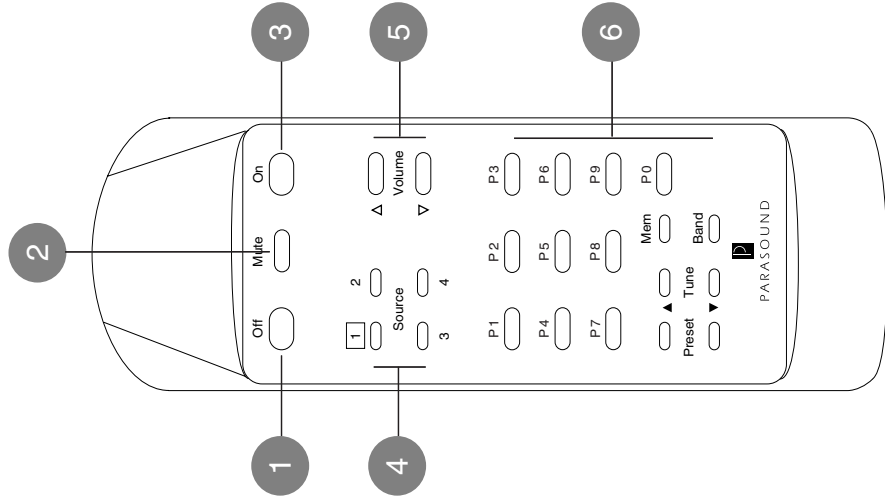


**Zpre Front Panel Controls and Indicators**

1. On-Off Switch
2. Headphone Jack
3. IR Receiving Eye
4. Bass Control
5. Treble Control
6. Balance Control
7. Source Selector
8. Priority and Mute Indicators
9. Volume Control
10. Input Source Indicators



1. Power Off
2. Audio Mute
3. Power On
4. Input Select
5. Volume  $\Delta$   $\nabla$
6. TDQ-150 Controls



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## Introduction

Congratulations on your purchase of this precision audio component and thank you for your selection of Parasound. The versatile Parasound Zpre is a high-quality two channel preamplifier that is ideal in multi-zone and multi-room installations. Please take a few moments now to read these instructions thoroughly so you may fully understand the unique capabilities of your new preamplifier.

## Unpacking

Carefully unpack your Zpre and locate the following accessories:

- Remote control handset
- Two AAA Batteries
- AC power cord
- DC trigger plug with short wire
- Warranty Registration Card

Be sure to inspect the unit for any possible shipping damage. If you notice any, contact your Parasound Dealer immediately. Save the carton and all of the packing materials in case you ever need to ship the Zpre for repair.

## Installation and Rack Mounting

Locate your Zpre on a sturdy surface and out of direct sunlight that may interfere with its remote control sensor. Place your Zpre away from equipment such as computers or tuners that could cause interference.

The Zpre panel dimensions are one rack space high (1 3/4" or 44 mm) by one-half rack width (9 1/2" or 242 mm). It will fit into a standard 19" wide equipment rack when mounted side-by-side with another Parasound half-width component. Optional parts are available from Parasound to rack mount the Zpre by itself or alongside another Parasound half-width unit.

Before you proceed, locate the serial number on the rear panel and record it here for future reference:

Serial # \_\_\_\_\_ Date of Purchase \_\_\_\_\_

Parasound Dealer \_\_\_\_\_ Phone Number \_\_\_\_\_

## Making Connections to your Zpre

Before making any connections, turn off the power to your source components and power amplifier. Make certain that all your connections are secure and that there is no tension on the cables that could cause them to pull loose later.

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## **Audio Input Connections 1 - 4**

Each of the four Audio Inputs is compatible with any typical analog line-level source such as a CD/DVD player, VCR, satellite receiver, tape deck, or tuner. Use shielded cables with RCA plugs to connect the left and right analog audio outputs from your source components to any of the four Zpre Audio Inputs.

The Audio 1 Input button on the remote control handset has a small box around it to indicate that it has a Priority function for automatic input switching.

## **Video Input Connections 1 - 4**

Each of the four Video Inputs is compatible with any typical NTSC/PAL composite video source such as a DVD player, VCR, or satellite receiver. Each Video Input is selected with its corresponding Audio Input. Use 75  $\Omega$  shielded video cables to connect the video output from each of your source components to the appropriate four Zpre Video Inputs.

## **Audio 1 Priority Input Connection**

The Audio 1 Input can be programmed to automatically override the other selected audio and video inputs. If you have activated the Priority circuit for Input 1 and the source you've connected to the Audio 1 Input jack is playing, the Zpre will automatically switch to Audio (and Video) 1.

This circuit establishes priority status for Input 1 and may be engaged or disengaged at any time by pressing and holding the Source 1 button on the remote control for 4 seconds until the front panel Priority LED is on. When the Priority LED is off, the Priority circuit is inactive and Audio Input 1 behaves like the other three inputs.

The Priority circuit is quite useful for multi-zone applications. For example, if you may connect your surround controller remote zone output to a Zpre located in the remote zone. Once the Priority circuit is on, the Zpre will automatically switch to Input 1 if it receives a signal sent from the main zone even if you had selected Input 2, 3, or 4 for listening to a local source.

## **Variable Left and Right Output Jacks**

The Variable Output jacks are the Main preamp outputs. They change level in response to the Volume control on the front panel or remote control. Use shielded cables with RCA plugs to connect the Left and Right Variable Output jacks of your Zpre to the input jacks of a two-channel power amplifier.

## **Fixed Left and Right Output Jacks**

The audio output signal for the selected input is simultaneously routed to the Fixed Level Output jacks. You can connect this output to a system controller that has its own volume control, or drive a power amplifier where you prefer to adjust the level at a wall-mounted speaker volume control instead of at the preamplifier or amplifier. The Fixed Output also provides a line level signal for recording to a cassette deck or other recording device.

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## Video Outputs

There are two Video Output jacks. The video source that corresponds to the Audio 1-4 Input you selected is simultaneously routed to the two Video Out jacks. One Video Out jack connects to the video input of your TV monitor and the other connects to the video record input on your VCR.

## RS-232 Control

The 9-pin RS-232 External Control serial port is designed for operating the Zpre by a system controller. This interface is compatible with software-based system controllers such as AMX, Crestron, or Phast. Contact your Parasound Dealer or Custom Installer for more information regarding interfacing an external control system to your Zpre. The RS-232 serial control codes are available from our website: [www.parasound.com](http://www.parasound.com).

## DC Trigger Input Jack

The Zpre can be turned on automatically when a trigger voltage is received from another component such as a Parasound Audio Video Controller or system controller. The DC Trigger requires an external DC voltage source between +9 Vdc to + 12 Vdc and requires only 0.2 mA of current to turn on.

The Zpre is supplied with a DC Trigger plug connected to a short wire. The positive wire has a white stripe on it and is attached to its center conductor. The all-black negative wire is attached to its sleeve.

**Note:** *When the DC trigger is connected, you cannot turn the Zpre on or off from the front panel or remote control handset.*

## DC Trigger Loop Out Jack

The DC Trigger Loop Out jack passes along the voltage that is received at the DC Trigger Input jack. It is provided as a convenience so you can “daisy-chain” the trigger voltage to other components.

## AC Line Cord Connector

The rear panel mounted IEC standard AC receptacle accepts the AC cord supplied with your Zpre. Make sure that it is properly seated, and then connect the plug to an uninterrupted AC power line.

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## Operating your Zpre

### Front Panel Operation

#### On-Off Button

Press this button once to turn the Zpre on and press it again to turn it off. When the Zpre is turned on, one of the Source LEDs will light up.

**Reminder:** *When the DC trigger is connected, you cannot turn the Zpre on or off from the front panel or remote control handset.*

#### Headphone Jack

The Zpre headphone output is driven by a high-quality headphone amplifier circuit. It is suitable for headphones with an impedance of 8  $\Omega$  or higher. The headphone circuit remains live, even when you press the Mute button.

#### Infrared Receiver

Infrared signals from the remote control are received through the infrared receiving eye.

#### Tone Controls and Indicator

The Bass control boosts and cuts low frequencies +/- 8 dB at 100 Hz.

The Treble control boosts and cuts high frequencies +/- 8 dB at 10 kHz.

We recommend judicious use of the tone controls. Maximum bass boost at high levels can overload small speakers.

#### Balance Control

The balance control adjusts relative left and right volume. If clockwise rotation favors the left channel speaker as you face it, the Right and Left connections between your preamplifier and power amplifier or between your power amplifier and speakers are reversed.

#### Source Selector Knob and Input Indicators

Rotating the Source knob selects the inputs of the Zpre. Each green Source LED 1 – 4 corresponds to the selected input. The knob is designed to rotate continuously to cycle through the inputs when the knob is turned in either direction.

#### Volume Control Knob

The Volume control adjusts listening level. If your power amplifier has gain controls, they should be adjusted so the Zpre Volume control knob is between the “11 o’clock” and “1 o’clock” position for most listening. The slight resistance you feel when turning the Volume control knob is created by the motor and gears that enable the volume knob to turn via remote control.



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## Remote Control Operation

The Zpre remote handset controls power On and Off, Input Select, Mute, and Priority Activation. The remaining buttons control the matching Parasound TDQ-150 FM/AM tuner. The remote control handset uses two AAA alkaline batteries. To open the battery compartment, simply push downward on the battery cover in the direction of the arrow. Be sure to observe the correct battery polarity that is marked inside the plastic case.

### On and Off Buttons

Separate On and Off buttons assure straightforward Zpre On and Off status. This facilitates operation by a system controller or when programming buttons on a learning remote control.

### Mute Button

Press the Zpre Mute button to interrupt the audio signal at the Variable Output jacks. The Mute button doesn't affect the Fixed Output jacks or the Headphone jack output.

### Source Selection Buttons

Each button selects one of the four input sources. The square around Input 1 is a reminder that this is the input equipped with the Priority circuit.

### Priority Function

If you press and hold the Input 1 button for four seconds, it activates the Priority function and the Priority LED is illuminated. To disengage the Priority function, press and hold the Input 1 button a second time. The Priority LED will turn off.

### When Priority is Activated

Whenever a signal is present at the Zpre Input 1 Audio jacks, it always selects Input 1 audio and video. As long as an audio signal is present at the Zpre Input 1 jacks you cannot switch to another input. If no signal is present at the Zpre Input 1 Audio jacks, you may select another input. However, as soon as a signal reappears at the Input 1 Audio jacks, it will automatically select Input 1.

When the audio signal at the Zpre Input 1 Audio jacks is no longer present, it will automatically switch to whichever input you previously selected. There's a five-second delay that prevents the Zpre from switching to another input during the silence between tracks while playing a CD.

### When Priority is Inactive

Input 1 operates the same as Inputs 2 - 4.

### Volume ▽ △ Buttons

The Volume ▽ △ buttons increase or decrease the signal level at the Variable Output jacks.

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## **Maintaining Your Parasound Zpre**

Your Parasound Zpre Zone Preamplifier requires no periodic maintenance and has no user serviceable parts inside. The exterior can easily be cleaned with a soft cloth moistened only with a few drops of water or glass cleaner.

### **In Case of Trouble**

If you suspect a problem with your Zpre, first turn off your power amplifier and check all your connections. Another component or even a defective hookup cable may be causing the trouble.

### **If All Else Fails**

Call your Parasound dealer or the Parasound Technical Service Department. We can usually suggest other diagnostic tests you can easily perform. If we determine that your Zpre should be returned to Parasound or an Authorized Parasound Warranty Center for inspection and possible servicing, we can provide the location of a warranty center near you or give you shipping instructions for returning the unit to Parasound. Authorized Warranty Centers are also listed on our website.

### **Returning your Zpre to Parasound for Service**

If we determine that you should send your Zpre to Parasound you will need to obtain a Return Authorization (RA) number. The RA number must be clearly marked on the outer carton only. Ship the unit with adequate insurance and a copy of your purchase receipt inside to validate your warranty. You must provide a copy of the original purchase receipt from an Authorized Parasound Dealer for warranty repair. Units purchased from unauthorized dealers are not eligible for warranty repair. Units that arrive without an RA number, without a suitable shipping carton or with evidence of improper internal packing materials may be refused. We do not accept collect shipments. After repair under warranty, the unit will be returned to you via prepaid UPS within the Continental United States.

In the case of a non-warranty repair, contact us and we will advise you of the repair charges before you ship the unit to us. The same packing and Return Authorization number requirements apply.

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## Zpre Specifications

### Frequency Response

5 Hz – 100 kHz, +0/-3 dB,

### Total Harmonic Distortion

≤ 0.003%, 20 Hz - 20 kHz

### IM Distortion

≤ 0.005%

### TIM

Unmeasurable

### Maximum Output

9 V before clipping

### Input Impedance

10 kΩ

### Input Sensitivity

200 mV ±5%

### Signal-to-Noise Ratio

> 102 dB, A-weighted

> 93 dB, Unweighted

### Maximum Hum

> 0.01 mV

### Crosstalk

> 76 dB, 20 kHz

### Video Frequency Response

- 3dB @ 45 MHz (100 kHz - 0 dB reference)

### Dimensions

9 1/2" W x 1 3/4" H x 7" D (2 1/4" high with feet)

### Power Requirements

110 V - 120 V AC, 8 W

*Features and specifications subject to change without notice*



PARASOUND

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