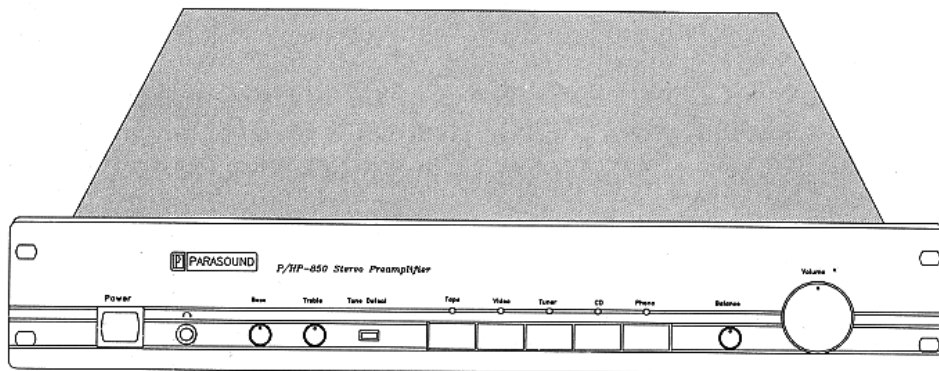**PARASOUND**

P H P - 8 5 0 S t e r e o P r e a m p l i f i e r

Congratulations on your purchase of this precision audio component and thank you for your selection of Parasound. Your new PHP-850 Stereo Preamplifier has been designed with the latest technology to become the heart of a top flight, but practical music system. With premium parts and advanced design, the PHP-850 represents one of the finest preamplifier values we've ever offered. You have made an excellent choice.

Please take a few moments now to read these instructions thoroughly so you may fully understand the sophisticated capabilities of your new preamplifier.

Unpacking

Remove the AC cord which is packed separately inside the carton. We recommend using only this specially selected cord for best musical reproduction.

Save your carton and the cardboard inserts for future safe transport in case you move or the unit requires shipping for repair. Note: the actual printed carton is not itself strong enough for safe shipping: you must place this carton into an additional outer "overcarton" before shipment.

Before you proceed, find the serial number which is located on the rear panel of the unit and note it here for future reference or in case the unit is ever stolen_____.

Placement

Keep your Parasound PHP-850 out of direct sunlight and away from windows which might accidentally be left open to let in rain. It should be placed away from a heat source such as hot air registers or radiators. Do not place the unit directly on a pile carpet that could interfere with air flow into its bottom vent openings. If you stack your components, we suggest you place your PHP-850 below or alongside other components which may generate heat. Proximity to some power amplifiers may contaminate low level signals with radiated hum from their transformers.

Making Connections

Before making any signal connections, make sure your PHP-850's volume control is turned fully counter-clockwise or its power is turned off. When making connections, make sure then is no strain or tension on any wires that could cause them to pull loose later on.

Input Connections

•CD	These inputs have the same input sensivity and impedance and are
•Tuner	compatible with any typical analog line level source: DAT, DCC, audio
•Video	output of a Laserdisc or VCR, D-A converter, tape deck. It's normal if
•Tape	your CD player or D-A converter sounds louder than any of the other
	sources and requires a slight volume control adjustment.
•Phono	This input accepts the output of a MM or high output MC phono cartridge.
•GND Terminal	The adjacent ground "GND" terminal is used for the 3rd ground wire from
	the turntable. in some rare cases, disconnecting the ground wire will reduce
	audible hum.

Tape Record/Playback Jacks

Play jacks connect to the Line Output jacks of the analog deck.
Rec jacks connect to the Line Input jacks at the deck.

Make sure you connect inputs and outputs of the Right and Left channels consistently, otherwise channels will be exchanged when you replay a tape you had recorded through this system.

Line Out Connectors

Normal	**These are the jacks you can use with any power amplifier. They connect to circuits that block DC which might be amplified through the power amplifier.**
Direct	**These are directly coupled and are used where you are certain your amplifier either blocks DC with a capacitor at its input or bypasses DC with servo circuits. The Direct output should sound a little stronger and clearer.**

AC Line cord

The IEC standard AC cord supplied with your PHP-850 is an audiophile-grade accessory. Please connect it directly to an AC wall outlet and avoid use of an extension cord or power strip; these will degrade sound quality.

Operating your PHP-850

Before turning the unit on, recheck all your connections and turn down the volume control to avoid any unpleasant "blasts" that could damage your speakers.

Power Switch

Press the upper part of the rocker to turn on. Press the lower part of the rocker to turn off. There will be a slight delay after turn on, while circuits are muted as they are stabilizing.

Volume Control

Adjust listening level; the knob controls a smooth, precision potentiometer. If your power amplifier has gain controls, they should be adjusted to accommodate a 11AM-1PM setting or your PHP-850 volume control knob for your most frequent listening level.

Balance Control

Adjust relative left and right volume levels with this precision control. If clockwise rotation favors the left channel speaker as you face it, you have reversed Right and Left hookups between your preamp and power amplifier or between your power amplifier and speakers.

Input Select Buttons

Press the button for the source you wish to hear. LED indicators indicate selection. (Remember, Phono is for turntables only.)

Bass and Treble Tone Controls

These offer precision adjustment of tonal balance. To preserve sonic clarity, use these controls sparingly and only for recordings that sound better with them. You will find that very slight adjustments can add a degree of warmth, richness, clarity and airiness. However, greater adjustments may obscure musical detail, and even risk overloading your speakers.

Tone Defeat

By pressing this button, you bypass all of the tone control circuitry. This will give you audiophile purity, reduced phase shift, noise and distortion, as if the tone controls were not present.

Headphone Jack

For private listening at any time. It accommodates headphones with an impedance range from 8 Ω to 600 Ω. To listen privately, you must turn off your power amplifier, as inserting a headphone plug into this jack does not mute the signal at the Line Output jacks.

Burning-in your PHP-850

Like many other great preamplifiers, your PHP-850 requires at least 72 hours of continuous operation after it is first turned on to sound its best. This gives various internal components and wiring a chance to "form" their optimum electron paths and pass complex musical information with greater definition, smoothness, and transparency.

Although we're certain your PHP-850 will sound spectacular when you first turn it on, you will find it worthwhile to reserve your final judgment until you've listened after a more few days. You'll discover additional details you may not have imagined in your music.

Maintaining your PHP-850

Your PHP-850 requires no periodic maintenance and has no user serviceable parts inside. Don't remove the top cover to avoid risk of electric shock. 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 or glass cleaner.

Your PHP-850 has corrosion-free gold RCA jacks, but it is a good idea to twist the input plugs to preserve perfect signal transfer by removing corrosion which might have accumulated on the connecting plugs themselves, if they are not gold plated.

Power Fuse

If this fuse blows, it is an indication of internal parts failure. Do not replace it with any larger value to avoid damage to internal parts. *Substitution of a larger fuse will void your warranty.*

In Case of Trouble

If you suspect a problem with your unit, first recheck all your connections. If one channel is inoperative, the trouble may be caused by another component or even a defective hookup cable. If only one channel remains inoperative, try reversing the Left and Right cables to your power amplifier (turn it off before moving wires). If the same channel stays out, it indicates trouble could be other than your preamp itself. We suggest you contact your authorized Parasound dealer or call Parasound Technical Service if you suspect a problem. We will suggest other diagnostic tests you can easily perform and which will save you a lot of trouble.

If we determine that your PHP-850 should be returned to Parasound for inspection and possible servicing, you must first obtain a Return Authorization number from Parasound. You will be asked to re-pack the unit in its original carton and cardboard packing *plus* an additional outerbox over its own box for proper protection in transit. The Return Authorization number must be clearly marked on the outer carton only. You should ship the unit by UPS with adequate insurance specified. You must include a copy of your purchase receipt to validate your ownership.

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 Continrental United States. In 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.

PHP-850 Specifications

Frequency Response
10Hz - 100 kHz, +0/-2 dB, full output

Distortion
< 0.009% THD, 1 kHz
<0.01%THD, 20 kHz
<0.01% IM

Maximum Output
> 10 V before clipping

Input Impedance
High Level 30 kΩ, +/- 5%
Phono   47 kΩ, +/- 5%

Input Sensitivity
High Level l50mV
Phono   2.5 mV

Max Input Level
High Level 9.5 V
Phono   160 mV

Signal-to-Noise Ratio
High Level   > 93 dB, A-weighted, full output
High Level   > 90 dB, A-weighted, full output -6 dB
Phono   > 65 dB, A-weighted, full output

Maximum Hum
< 0.04 mV, full output

Crosstalk
> 60 dB, ≥ 10 kHz, full output

Separation
> 80 dB, ≤ 10 kHz, full output, tone controls off
> 60 dB, ≤ 10 kH, full output, tone controls on

Channel Balance
≤ 0.8 dB
≤ 1.5 dB, -60 dB

Tone Control Range
 10 dB, +/- 100 Hz
 10 dB, +/- 10 kHz

Dimensions
17" wide x 3 5/8" high x 11 1/2" deep

Power Requirements
110 V - 120 V AC, 10 W

Weight
13 1/2 lb.

Special Features

- 100% pure Class A

- J-FET input stage

- Best Analog Devices parts

- CMOS solid-state switching

- Buffered outputs

- IEC removable AC cord

- Function LEDs

- Gold-plated jacks

- FR 4 glass circuit boards

- 19,000 μF filter bank

- Film bypass caps

- Gold series capacitors

- Precision volume control

- Headphone output

- Direct coupled output

- Defeatable tone controls

- Turn on/off mute circuit

- Accurate RlAA for phono

- Silver clad copper wiring

- Low distortion design

Please Stay in Touch

We'd like to hear from you about your experience with your Parasound PHP-850. Of course we want to assist you with any questions you may have, but we'd also be thrilled to know how much you are enjoying the unit. You don't need to have a problem as an excuse to call.

Reviews are coming in from all over the world and we continually have exciting new products in development. If you'd like us to keep you advised, just drop a line and ask to receive updates. We welcome your suggestions and look forward to hearing from you.

PARASOUND

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