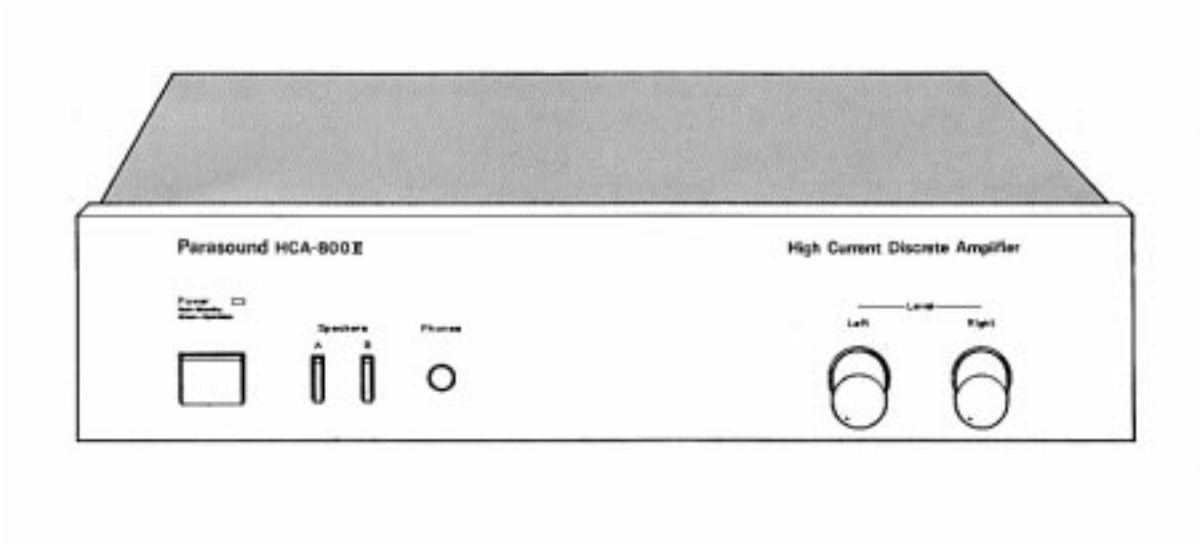
O W N E R ' S M A N U A L

PARASOUND

HCA - 800 II High Current Power Amplifier

Congratulations on your purchase of this precision audio component and thank you for your selection of Parasaund. Your HCA-800II has been designed with the latest technology to become the heart of the finest music systems. Its high power output is matched by enormous current capacity to drive virtually any speakers known. A robust 700vA toroid transformer and 30,000uF power supply assure power in reserve. An ultra-fast discrete A/AB output stage assures flawless reproduction. 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 power amplifier.



Unpacking

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_____.

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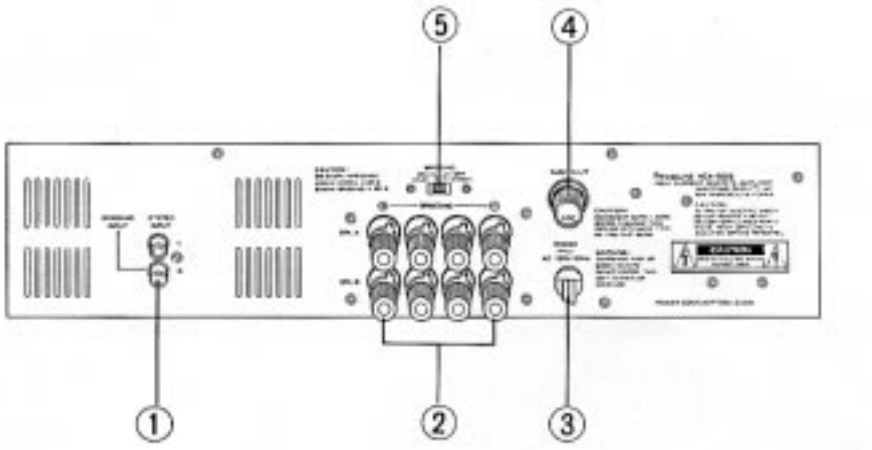


Caution: To reduce the risk of electric shock, do not remove the top cover. There are no user-serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To prevent fire or shock hazard, do not expose this unit to rain or moisture.

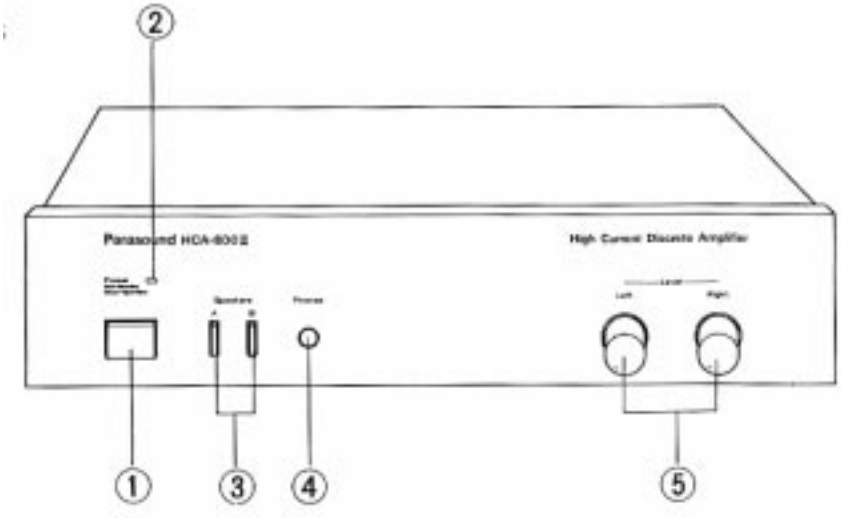
Rear Panel

1. lnput Jacks (RCA type)
2. Speaker Terminals
3. AC Power Cord
4. Main Fuse
5. Mono Bridging Selector



Front Panel

1. Power Switch
2. Standby-Operation LED
3. Speaker Switches
4. Headphone Jack
5. Level Controls



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Placement of your HCA-800II

Keep your Parasound HCA-8OOII out of direct sunlight and away from windows which could ever be left open to let in rain. It should be placed away from heat sources such as hot air ducts 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 place the HCA-8OOII on the floor near your speakers, elevate it up from the pile of the carpet. If you stack your components, it is better to place the HCA-800II above or alongside your other components; when driven hard, the unit itself may create a little heat and disturb components stacked on top of it. If it is inside a cabinet, allow ample ventilation. Very sensitive low level sources might pick up some hum radiated from its enormous power supply.

Making Connections

Before making any signal or speaker connections, make sure your power amplifier is turned off. When making connections, make sure there is no strain or tension on input leads or speaker wires that could cause them to pull loose later on.

Input connections

In most stereo systems, you will use the gold-plated RCA jacks for the R and L channels. Make sure these are consistent with the R and L outputs from your preamplifier.

Speaker connections

You may use either bare wire or banana plugs with the HCA-800II "5-way" terminals. If you use bare wire without spade lugs or plugs, make sure you strip only enough wire to fit into the hole that runs across the metal shaft of the terminal. Before inserting the wire, twist all its strands tightly to prevent strays that could cause a short circuit between + and - terminals!

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Polarity

It is important to observe correct polarity when using in stereo mode. One side of the speaker lead will have some sort of mark, either printing, a raised ridge on the insulation or different color of conductor. This permits you to know which wire you had connected to the + and which to the speaker terminals so you can do exactly the same at the power amplifier terminals.

Multiple speaker hookup

The HCA-800II has separate terminals and switching to select two independent pairs of speakers. The amplifier is designed to operate at full power into a minimum load of 4Ω, however it can operate at moderate levels into 2Ω loads. Sustained operation into a speaker load whose impedance is too low results in excess current flow which may trigger protection circuits or damage the amplifier's output transistors. Many speakers have an actual impedance that is much lower than its rated impedance. If either of your speaker systems are less than 8Ω, you should check with your Parasound dealer before attempting combined operation.

Mono Hookup

For mono, you will use only the red + speaker terminals of the L, R channel for your single speaker. In this case, you must also move the recessed Mono/Stereo slide switch to mono before tuming it on to avoid damage to your amplifier. You will only need to connect the mono input lead to the amplifier's R channel.

Mono/Stereo Switch

This switch is recessed so it cannot be accidentally moved. Never move this switch while the amplifier is turned on!

Minimum Mono Impedance

The minimum recommended load for mono is 8Ω. If you know that your speakers have a uniform impedance curve and you do not attempt to drive the unit to high sustained levels, you may use a 4Ω load. To be safe, it is better to use a minimum 8Ω load.

These restrictions result from the mathematics of the bridging circuitry: in the bridge mode each channel of the amplifier functions for either the + or - half of the musical waveform. Thus, each channel "sees" one half the speaker's impedance. Use of an 8Ω speaker means that the load for each channel is 4Ω. And for a 4Ω speaker, it results in only 2Ω.

Use good wire

For best results you should never use speaker wire thinner than 16 gauge - it will constrict the sound and deteriorate bass response. You may also wish to experiment with audiophile-grade speaker wire and interconnects. Each will have a diffferent characteristic sound and some may be more compatible with the sonic signature of your various components. Your HCA-800II is stable with any reputable brand of wire.

AC Line cord

You can plug this into a wall socket or an AC outlet on your preamplifier. If you plan to leave the HCA-800II power switch on and tum it on and off with your preamp, make sure the preamp's own power switch is rated for the full current draw of the HCA-800Il. Connection by flimsy extension cord (or preamp power cord) will impair the sound reproduction of the HCA-800II.

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Operating the HCA-800II

Power Switch

Press once to the in position to tum the unit on. Press again to the out position to tum it off.

Level Controls

Adjust the gain of each channel independently. You may adjust these to maximize your system's S/N ratio. Many preamps have volume controls which do not track correctly to preserve channel balance at the lowest end of their rotation. By reducing the settings of the HCA-800II level controls you can use the preamp volume control in its optimum range.

Standby/Operation LED

This LED will come on red whenever you first turn the unit on. It will light for about four to five seconds while the circuit is stabilizing before the protection relay clicks on. At this time it will turn green to signal normal operation is available. It will also light up red whenever there is a short circuit or fault which triggers the protection relay. Whenever this LED illuminates red, no sound can be heard. If the Standby LED lights up red during operation, it could signal an overload, short circuited speaker line or possible internal fault. The protection circuits automatically reset. Tum the HCA-800II off for at least 10 minutes while you check your connections, then try again. If the LED continues to glow red, you should contact your dealer for further advice.

Speaker A and B Switches

Each switch A and B controls one pair of speakers. Do not press either switch while the HCA-800II is operating at high power. Make sure the combined parallel speaker load is above 4Ω.

Headphone Jack

Use for private listening with high quality headphones. This jack is always "live".

Fuses

The HCA-800II has one extemal and several intemal fuses which may blow as a result of an intemal fault condition. This protects the unit from possible damage to intemal parts. You should not attempt to replace intemal fuses yourself - there are dangerous high voltages stored in the power supply even after power has been tumed off or the unit has been unplugged. In any case, never replace any fuse with a larger value. Substitution of a larger fuse may create serious stress or damage to intemal parts and will void your warranty.

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"Breaking-in" the HCA-800II

Like other great power amplifiers, the HCA-800II requires about 24 hours of operation afler it is first turned on to sound its best. This gives delicate capacitors a chance to "form" and pass audio signals with greater definition, smoothness and transparency.

Although the HCA-800II will sound spectacular when you first operate it, you will find it worthwhile to listen again after a few days and you'll discover details in your music you may not have guessed were there.

Maintaining your HCA-800II

The HCA-800II requires no periodic maintenance and has no user serviceable parts inside. Do not 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 sort cloth moistened only with a few drops of water.

The HCA-800II has corrosion-free gold input jacks, but each year it is a good idea to twist the input plugs to preserve perfecf signal transfer by removing corrosion which might have accumulated on the connecting plugs themselves. Make sure the unit is turned off while you do this.

In Case of Trouble

If you suspect a problem with this 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 is out for all sources, try reversing the L and R cables to the power amplifier (tum it off before moving wires). If the same channel stays out, it indicates trouble with the power amplifier 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 yourself and which will save you a lot of trouble.

If it is determined that the HCA-800II should be retumed for inspection and possible servicing, you must first obtain a Return Authorization number. You will be asked to re-pack the unit in its original carton and styrofoam packing plus an additional outer box over its own box for proper protection in transit. You should send the unit by UPS with adequate insurance specified.

Units that arrive without the correct Retum Authorization number, without a suitable shipping carton or evidence of improper intemal packing or collect will be refused. We cannot accept collect shipments. After repair under warranty, the unit will be retumed to you via prepaid UPS. If we found no problem with the unit, we will ship the unit by UPS collect for return shipping charges.

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HCA-800II Specifications

Continuous Power Output - Stereo
100 watts RMS x 2, 20Hz-20kHz, 8Ω
150 watts RMS x 2, 20Hz-20kHz, 4Ω

Continuous Power Output - Mono
260 watts RMS, 20Hz-20kHz, 8Ω

Current Capacity
28.3 amperes continuous
40 amperes peak, up to 200msec.

Slew Rate
60V/µ second

Frequency Response
8Hz-90kHz, +0/-3dB

Total Harmonic Distortion
< 0.08% at full power
< 0.03% typical levels

IM Distortion
> 0.1%

TIM
Unmeasureable

Dynamic Headroom
>1.5dB

Input Impedance
30kΩ

S/N Ratio
>104dB, input shorted, IHF A weighted

Damping Factor
Over 100 at 20Hz

Dimensions
17 1/4" wide x 3 3/4" high x 11 3/4" deep
19" wide using RMK-800 rack mount kit

Weight
23 lbs.

Special Features
• 700VA toroid power tmnsformer
• 60MHz output transistors, in A/AB mode
• 30,000ufd gold capacitors in power supply
• Cascode Class A input stage
• Gold-plated input jacks

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Parasound Limited Warranty (USA only)

Your Parasound HCA-800II preamplifier is covered by a limited warranty against defects in materials and workmanship for a period of two (2) years from date of purchase. This warranty is provided by the Parasound dealer where the unit was purchased. Warranty repair will be performed only when your purchase receipt is presented as proof of ownership, date of purchase and authorized status of the dealer. Defective parts will be repaired or replaced without charge by your authorized dealer's store or the location designated by your dealer that is authorized to service Parasound equipment. Additional information is available by calling or writing to the Service Manager, Parasound Products, Inc. at the address below. Charges for unauthorized service and transportation costs are not reimbursable under this warranty.

This warranty becomes void if the product has been damaged by alteration, misuse, accident or neglect. This warranty becomes void if unit has been operated contrary to printed Parasound instructions. This warranty applies only to units used in residential, non-commercial situations. The warrantor assumes no liability for property damage or any other incidental or consequential damage whatsoever which may result from the failure of this product. Any and all warranties of merchantability and fitness implied by law are limited to the duration of this expressed warranty.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary state by state.

Please Stay in Touch

We'd like to hear from you about your experience with your Parasound HCA-800II. 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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