



OWNER'S GUIDE

Emerald Physics EP 200.2SE



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**

**REFER SERVICING TO QUALIFIED SERVICE
PERSONNEL**

START HERE!

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 bottom of the case 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.

**Please refer to the section marked FLOATING GROUND
which is further down in this document**

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.
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. Heat — The product should be situated away from heat sources such as radiators, heat registers, stoves, and other products.

Unpacking and Accessories

Congratulations and thank you for your purchase of this Emerald Physics EP 200.2SE Integrated Power Amplifier. These Emerald Physics amps were designed to compete with amps selling for significantly higher costs. They were designed to offer high end performance at reasonable costs.

Please be sure to read this manual thoroughly before you begin installation.

Unpacking

Carefully unpack your Emerald Physics EP 200.2SE Integrated Power Amplifier along with the detachable AC power cord, Remote Control and a pair of jumper interconnect cables to connect the Pre Out and Main In on the rear panel.

Please inspect the unit now and contact Emerald Physics or your distributor (if out of North America) 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 serial number on the bottom of the unit and record it here for future reference:

Keeping Records for Future Reference

Record the serial number located on the bottom of your EP 200.2SE in the space below. Also note your Emerald Physics Dealer's name and telephone number. Your purchase receipt/ bill of sale is required to determine if your 200.2SE is eligible for Emerald Physics warranty service. We recommend that you make an extra copy of your original purchase receipt/bill of sale and store it inside the EP 200.2SE carton. Our serial number will be located on the bottom of the unit.

OWNERSHIP REFERENCE INFORMATION			
Emerald Physics 200.2SE Serial #:			
Emerald Physics Dealer or Distributor	() -	Date of Purchase:	/ /
Phone Number:			

Voltage selection

115v - 230v AC Voltage Change

The EP 200.2SE is capable of operating in multiple regions – both 115v/60Hz and 230v/50Hz are served. To use this product in a different region other than the original Factory Set Voltage one must refer this unit to qualified service personnel as the voltage “change: is performed by de-soldering from the original position and then re-soldering wires to the newly selected region. **THIS MUST BE DONE BY A QUALIFIED SERVICE TECHNICIAN ONLY**. The unit may be seriously damaged if this is set incorrectly.

Ground Switch (please read this section carefully and completely)

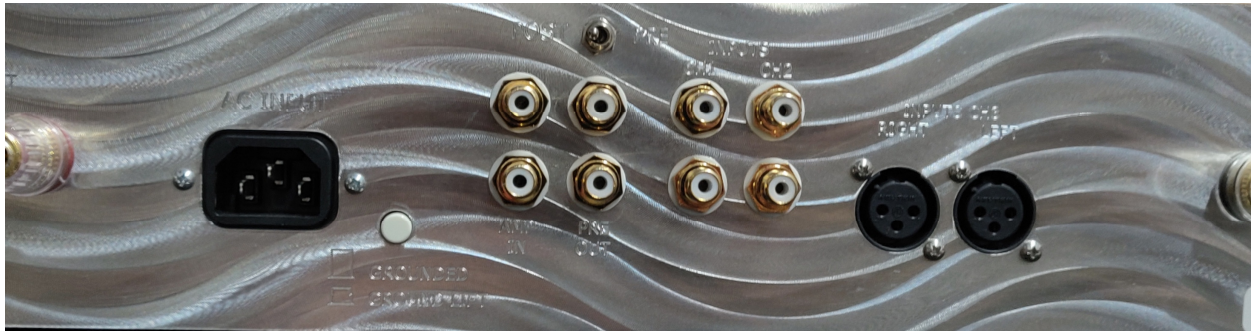
Ground loops occur when two components in your system have a different ground potential. The difference is amplified as 60Hz hum. Neither product is broken, they simply have different ground potentials. Ground loops can even come with the ground connections of the audio cables or even the ground wires of the various AC cords in your system.

Grounded is the normal position for this switch (the out position). If you hear background hum in the speakers connected to your amp, try setting the Ground Lift Switch to its Lift position by pushing the button in. The ground switch disconnects or “lifts” the audio circuit from the chassis ground. This often fixes the ground loop that is causing hum in your system.

Wherever possible, plug your Emerald Physics amp into the same AC outlet that your accompanying audio components (especially any other HT Processor or Amp) are plugged into. The ground potential between different AC outlets may be higher or lower, resulting in audible hum.

Installation and Ventilation Requirements

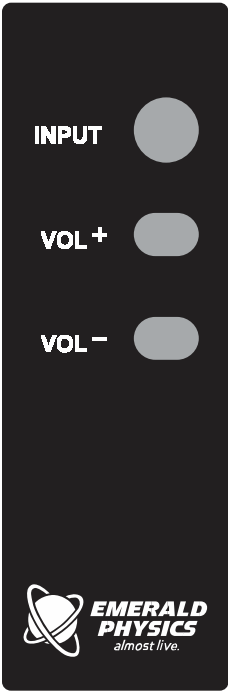
Install your Emerald Physics amp away from heat sources. Observe the following ventilation guidelines when installing the amp in an equipment rack or any other enclosed space: You should never install the amp in an unventilated area without some breathing room around it because hot air will not exhaust adequately to prevent overheating. Do not place the unit on carpeting or any other material that could obstruct air flow around the bottom vents of the amplifier.



Connection Warning

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

Stereo system operation: Connect shielded audio cables from your source components (i.e. CD Player, Streamer etc.) output jacks to the input section of your 200.2SE. The Integrated Amp has 2 RCA & 1 XLR inputs. Use any of the 3 inputs and make sure the input switch is set to your desired input by toggling the remote control or using the Input Knob on the front panel. The remote is simple yet effective – see picture below.



Special Pre/ Post Volume Control

The 200.2SE is equipped with an Alps Motorized Volume Control. That said, this control may be used in several different configurations actuated by a switch marked Pre/Post located Center/Top of the rear panel.

In Pre-Mode this allows one to use the EP 200.2SE as a Power Amplifier and Switching Center used in conjunction with your Home Theater set up. The EP 200.2SE allows a perfect blend of its strengths with any Home Theater Set Up.

In Post Mode – this allows the EP 200.2SE to be used as an Integrated Amp in any High End 2-Channel audio system as the Volume Control will not only control the volume of the EP 200.2SE but as well... ***it will control any other amplifier used in conjunction with the EP 200.2SE*** thereby allowing one to utilize the incredible amplifier section in conjunction with any other amplifier (or outboard Room Correction Device or Equalizer) and thereby creating a bi-amped configuration for use with Emerald Physics or other loudspeakers that can be bi-amped.

Lastly – please note that one can actuate a Volume Change by either Remote Control (as labeled) or the front panel knob marked Volume. Gently turning this knob will increase (or decrease) the volume. Increase is Clockwise and Decrease is Counter Clockwise.

Please note the following –

You'll note that your EP 200.2SE comes with a pair of high quality RCA Interconnect Cables. One must “jump” (connect) Pre-Out and Main In to secure an internal connection through the separate Pre-Amp and Power Amp sections. Failure to do this will result in no sound output.

Input Switching

As previously mentioned, the Micro-Processor based Input Switching Function may be used by toggling (1,2,3) via the Input Button on the Remote Control, or by gently actuating (turning) the Input Knob on the front panel of your EP 200.2SE.

Speaker Connections

All Emerald Physics amps use high-quality gold-plated copper 3-way binding posts that accept bare wire, spade lugs and banana plugs. These are far superior to the typical gold-plated brass posts that most amps use. Hook your left and right channel speaker cables up making sure that the positive (+) and negative (-) ends from the speakers are run to the Positive and negative leads on the amp. Getting them reversed will not hurt the amp but will make poor bass and poor diffused imaging.

IMPORTANT: Make sure the + and - wire you attach to the amps + and - speaker terminals are attached to the + and - terminal of the speaker for that channel. This assures that the speakers are in phase.

Amplifier protection

This amplifier is protected by on-chip diagnostic protocols that monitor a variety of status indicators. These include -

Direct Short
Thermal Protection
Over Current
Power Supply Voltages

Fault mode occurs when you see the Master Power Indicator going **RED** – If your EP 200.2SE goes into fault mode, immediately power down and wait 30 seconds before re-powering your EP 200.2SE. Please carefully examine the rear panel and check to be sure that none of your speaker connections are touching. Check to be sure that all Input, Output and/or jumper cables are in place with a solid connection. Wires can and do become twisted or pulled out or away from their normal connection(s). Pay particular attention to your speaker cables at both the output of the EP 200.2SE and your speakers themselves. Check again to be sure that no wires are touching – this creates a short circuit and this is bad.

Maintaining Your Emerald Physics amplifier

Your Emerald Physics power amplifier requires no periodic maintenance. 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.

Troubleshooting

No sound

Make sure the patch cords are connected hooking up the pre-out to main-in jacks

Check that AC is live.

Is the unit on?

Check that input cables and speaker wires are secure at both ends.

Make sure that you have selected the correct input.

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

First unplug all sources Audio and Video as they possibly can present hum on their lines. One must then introduce one unit at a time to see if the hum comes back. Video (particularly Cable Company Equipment) are known offenders in this regard. If the hum re-introduces itself, please call your Cable Provider and ask them to install an appropriate filter. There are “Hum Busting” products that one can self-install to see if this solves the problem (note: it probably will).

One can also try the following -

Move audio cables and AC cords away from each other.
Try different routes for the audio cables and AC cords.
Try reversing the direction of each other component's AC plug, one by one.

Overheating

Remove any external sources of heat.
Increase ventilation around the amp.

If you need help

Call Emerald Physics (770-667-5633) or your overseas dealer or distributor first.

If we determine that your Emerald physics amp needs to be returned to Emerald or an Authorized Emerald Warranty Center for inspection and possible servicing, we will provide the location of a warranty center near you or shipping instructions and a Return Authorization number for its return for service

Before You Return Any Unit for Service

Before you send your unit to Emerald Physics you will need to obtain a specific Return Authorization (RA) number and shipping instructions from Emerald Physics. 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 Emerald Physics or an Emerald Physics authorized warranty center when your purchase receipt is from Emerald Physics or an Emerald Physics authorized dealer or international reseller.

Units Will Be Refused by Emerald Physics under the Following Conditions:

1. Unit was sent without the Emerald Physics 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 sent to an address other than the address instructed by our Technical Department.

Note:

The shipping address for service is not the same as Emeralds office address.
Shipping address will be provided with your RA.

Warranty Repair

Read the Emerald Physics Limited Warranty carefully to understand the applicable rights and limitations. This section provides instructions for obtaining repairs, both for units covered under the Emerald Physics Limited Warranty and for units or situations which are outside the Warranty. Unit is not eligible for repair under the terms of the Emerald Physics warranty if:

1. Unit was not purchased from an Emerald Physics Dealer or Distributor.
2. You are not the original owner. The warranty is not transferable.
3. Unit's serial number was removed, modified, or defaced.
4. Unit shows evidence of abuse and/or misuse.
5. Unit was modified in any way by an unauthorized source.
6. A prior repair was attempted by an unauthorized repair station.

Check our website at www.emeraldphysics.com for any updates to the amplifiers

WARRANTY TERMS AND CONDITIONS

1. LIMITED WARRANTY

Emerald Physics warrants the product designated herein to be free of manufacturing defects in material and workmanship, subject to the conditions hereinafter set forth, for a period of three (3) years from the date of purchase by the original purchaser or no later than five (5) years from the date of shipment to the authorized Emerald Physics dealer or distributor, whichever comes first.

2. CONDITIONS

This Warranty is subject to the following conditions and limitations. Only new products purchased through an authorized Emerald Physics retailer or importer are eligible for warranty coverage. The Warranty is void and inapplicable if the product has been used or handled other than in accordance with the instructions in the owner's manual, abused, or misused, damaged by accident or neglect or in being transported, or the defect is due to the product being repaired or tampered with by anyone other than Emerald Physics or an authorized Emerald Physics repair center. The product must be packed and returned to Emerald Physics or an authorized Emerald Physics repair center by the customer at his or her sole expense. Emerald Physics will pay return freight of its choice. **A RETURNED PRODUCT MUST BE ACCOMPANIED BY A WRITTEN DESCRIPTION OF THE DEFECT AND A PHOTOCOPY OF THE ORIGINAL PURCHASE RECEIPT.** This receipt must clearly list model number, the date of purchase, the name and address of the purchaser and authorized dealer and the price paid by the purchaser. Emerald Physics reserves the right to modify the design of any product without obligation to purchasers of previously manufactured products and to change the prices or

specifications of any product without notice or obligation to any person. No products will be accepted for repair without a return authorization (RA) number. Call the factory in North America, at 770-667-5633, or your local dealer or distributor if outside of North America for this RA

3. REMEDY

In the event the above product fails to meet the above Warranty and the above conditions have been met, the purchaser's sole remedy under this Limited Warranty shall be to return the product to Emerald Physics or an authorized Emerald Physics repair center where the defect will be rectified without charge for parts or labor.

4. LIMITED TO ORIGINAL PURCHASER

This Warranty is for the sole benefit of the original purchaser of the covered product and shall not be transferred to a subsequent purchaser of the product

5. DURATION OF WARRANTY

This Warranty expires on the third anniversary of the date of purchase or no later than the fifth anniversary of the date of shipment to the authorized Emerald Physics dealer or distributor, whichever comes first.

6. MISCELLANEOUS

ANY IMPLIED WARRANTIES RELATING TO THE ABOVE PRODUCT SHALL BE LIMITED TO THE DURATION OF THIS WARRANTY. THE WARRANTY DOES NOT EXTEND TO ANY INCIDENTAL OR CONSEQUENTIAL COSTS OR DAMAGES TO THE PURCHASER. Some states do not allow limitations on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

7. WARRANTOR

Emerald Physics
Lahaina, HI 96761
770-667-5633

Emerald Physics has authorized distributors in many countries of the world. In each country, the authorized importing retailer or distributor has accepted the responsibility for warranty of products sold by that retailer or distributor. Warranty service should normally be obtained from the importing retailer or distributor from whom you purchased your product. In the unlikely event of service required beyond the capability of the importer, Emerald Physics will fulfill the conditions of the warranty. Such product must be returned at the owner's expense to the Emerald Physics factory, together with a photocopy of the bill of sale for that product, a detailed description of the problem, and any information necessary for return shipment. **All return freight charges incurred will be the responsibility of the buyer on sales outside of the North America.**

YOU SHOULD KNOW

There is no Emerald Physics warranty for any Emerald Physics product if it was not purchased from an Authorized Emerald Physics Dealer or Distributor.

Investigate any warranty claims made by unauthorized dealers very carefully as you will need to depend entirely upon the dealer, and NOT upon Emerald Physics. Unauthorized dealers may lack the capability to arrange repairs of Emerald Physics equipment.

Authorized Emerald Physics Dealers are listed at www.EmeraldPhysics.com or you can call 770.667.5633.

Amplifier Features and Specifications

A State-of-The-Art Class D Amplifier Architecture

An All Analog Power Supply featuring TWIN Toroidal 400vA Transformers

A Separate Toroidal Power Supply for the Micro Processor Controlled Switching Front End

A Custom American-Made Machined Caseworks with Clear Anodized Finish

An 85% Efficient Design

RCA & XLR inputs supported

Three-year factory warranty to original purchaser

Gain 30dB

2-ohm stable

Dynamic Range 110dB Typical

Damping factor: >300

Input impedance: 30K ohms RCA / 60K ohms Balanced

Gold plated copper binding posts

Typical distortion: Less than .03% distortion @ 1 watt

220 watts per channel 8 ohms both channels driven @.08% THD

275 watts per channel 8 ohms both channels driven @ less than 1% THD

400 watts per channel 4 ohms both channels driven @.08% THD

Made in the USA

Specifications and features subject to change without notice.

