Cinénova Grande

5/7-CHANNEL POWER AMPLIFIER **USERS MANUAL**



Rave Award Winner for **BEST AMPLIFIER OVER** \$3,000.00



"Potent combination of speed, grace and power"
September 2005 HomeTheater Magazine

"This amp brings new meaning to the phrase 'gentle giant' "
Home Theater Magazine, June 2000.



Earthquake Sound Corporation 2727 McCone Avenue Hayward California U.S.A. 94545 feedback at tech@earthquakesound.com www.earthquakesound.com

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Five (5) year limited warranty

Earthquake warrants the original purchaser that all Factory Sealed New Audio Products to be free from defects in material and workmanship under normal and proper use for a period of five (5) years from the date of purchase (as shown on the original bill of sale with serial number affixed/written on it). The five (5) year warranty period is valid only if an authorized Earthquake dealer properly installs the product and the warranty registration card is properly filled out and sent to Earthquake Sound Corporation. If a non-authorized party installs the product, a ninety (90) day warranty period will be applied.

(A) Five (5) years limited warranty plan coverage guidelines:

- First year: Earthquake pays for labor, parts, and ground freight (only in US mainland, not including Alaska and Hawaii) (shipping to us is not covered).
- **Second year:** Earthquake pays for labor and parts only, customer must pay freight both ways.
- Third, fourth & fifth year: Earthquake pays labor only. Customer must pay for parts and freight both ways.

(B) Warning:

Products (sent for repair) that are tested by Earthquake technicians and deemed to have no problem(s) will not be covered by the five (5) year limited warranty. Customer will be charged a minimum of one (1) hour of labor (at the ongoing rates) plus shipping charges back to customer.

(C) Earthquake will repair or replace - at our option - all defective products/parts subject to the following provisions:

- Defective products/parts have not been altered or repaired by other than an Earthquake factory-approved technician.
- Products/parts are not subjected to negligence, misuse, improper use or accident, damaged by improper line voltage, used with incompatible products or have its serial number or any part of it altered, defaced or removed, or have been used in any way that is contrary to Earthquake's written instructions.

(D) Warranty Limitations:

Warranty does not cover products that have been modified or abused, including but not limited to the following:

- Damages to speaker cabinet and cabinet finish due to misuse, abuse or improper use of cleaning materials/methods.
- · Bent speaker frame, broken speaker connectors, holes in speaker cone,

surround & dust cap, burnt speaker voice coil.

- Fading and or deterioration of speaker components & finish due to improper exposure to elements.
- Bent amplifier casing, damaged finish on the casing due to abuse, misuse or improper use of cleaning material.
- · Burnt tracers on PCB.
- Product/part damaged due to poor packaging or abusive shipping conditions.
- Subsequent damage to other products.

warranty claim will not be valid if the warranty registration card is not properly filled & returned to Earthquake with a copy of the sales invoice. Warranty card is located on the last page of this manual.

(E) Service Request:

To receive product service, contact Earthquake service department at (510) 732-1000 and request an RMA number (Return Material Authorization). Items shipped without a valid RMA number will be refused. Make sure you provide us with your complete/correct shipping address, a valid phone number, and a brief description of the problem you are experiencing with the product. In most cases, our technicians might be able to resolve the problem over the phone; thus, eliminating the need to ship the product.

(F) Shipping Instructions:

Product(s) must be packaged in its original protective box(es) to minimize transport damage. Shipper claims regarding items damaged in transit must be presented to carrier. Earthquake Sound Corporation reserves the right to refuse improperly packed product. Original bill of sale must accompany product returned for service. We encourage you to include with the package a written description of the problem. Ship product to: Earthquake Sound Corp. 2727 Mc Cone Avenue, Hayward, CA 94545. Ph (510) 732-1000. You are responsible for the cost of shipping the product to Earthquake Sound Corporation.

(G) Disputes Resolution:

All disputes - between clients and Earthquake Sound Corporation - resulting from the five (5) years limited warranty policy must be resolved according to the laws & regulations of the county of Alameda -California.

Product Registration

This Cinénova Grande Power Amp can be registered by returning the Product Registration card attached to this manual or by visiting www.earthquakesound.com/product registration. Please also retain the bill of sale, which represents proof of purchase and helps expedite warranty issues.

Your Cinénova

Thank you for purchasing this Cinénova Grande reference amplifier designed to satisfy your audiophile needs for music enjoyment. The Cinénova Grande is conceived to reproduce"true to life" music as it was originally recorded, without tempering, coloration or compression.

Like the finer things in life, the Cinénova Grande was conceived with love for details, hunger for power, and gratifying grace; consequently ranking it "at the top" in the realm of High Fidelity.

Most of home theater systems sold to consumers integrate low power amplifier / receiver units, normally not exceeding 150 Watts per channel. However, professional theater systems employ individual components which provide the best separation and potentially a lot more power. Audiophiles agree that an audio amplifier is the heart of any system; It must be able to meet the demands of the softest musical passage to the thundering special effects of a movie, without sacrificing audio quality.

The Cinénova Grande's untainted sonic quality is only matched by its enormous power and stringent technical performance. The finesse of high-fidelity audio, combined with the mastery of multichannel amplification, make the Cinénova Grande the cornerstone for a high-end home theater setup. This amplifier caters to both the music afficionado and the home cinema buff. After all, faithful reproduction of music is our business.

The Cinénova Grande technology integrates minimum number of components in the audio path, leading to excellence in sound quality, efficiency, and clean amplification. Working side by side with Engineers from Toshiba, our engineers helped develop one of the fastest transistors in the industry, a 15 Giga-Hertz switcher. Fast,

accurate, and powerful, the 15 GHz switcher allowed engineers to use less number of components in the audio path. Users are able to enjoy pure music, untainted by components distortion.

Earthquake Engineers, driven by their desire for excellence, pushed the envelop beyond its limits. They designed the "bi-file" toroidal transformer circuit witch allows five separate power supplies (one for each channel) to be magnetically coupled to one single primary 4KVA transformer. The 99% efficient power supply permits large amount of voltage to flow through with near nil heat losses.

The "Alpha One" is a monaural 1000 watts amplification/power block, used in both the 5-channel and 7-channel Cinénova grande amplifiers. The "Alpha One" blocks are individually removable using the Earthquake patented "EZXS" system, without the need to dismantle the rest of the amplifier. Channel separation exceeds the norms of 90 decibels and stretches it to 110 decibels.

"Sounding good" and "looking good" are both integral characteristics of a Cinénova Grande amplifier. The elegant industrial design is only surpassed by the sturdy chassis upon which the amplifier is built, 12 gauge steel is shaped to house the "Alpha One" modules and transformer. The chassis is beautifully faced with an 8 mm aluminum plate, hand engraved and available in both Black and Platinum finish.

Constructing a Cinénova Grande is a fun process. From hand assembling, calibrating, burn testing, and packaging, every step is conducted with love for details and hunger for perfection. We enjoyed building your Cinénova Grande and we hope you will feel the same using it.

From our home to your home... Thank you.



Professor Joseph J. Sahyoun; President & Chief Engineer



Individually hand assembled and tested, these Monsters are lined up for final packaging. Wood crates are used to package these 130lbs (+) amplifiers to prevent any damages during shipping.



Important Safety Instructions

- 1) Read these instructions in their entirety.
- 2) Store this manual and packaging in a safe place.
- 3) Heed all warnings.
- Follow instructions (do not take short cuts).
- 5) Do not use this apparatus near water.
- 6) Clean only with a dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturers instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatuses that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider that the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- 10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the pint where they exit from the apparatus.
- Only use attachments & accessories specified by the manufacturer.
- 12) Use only with a cart, stand or table that can support the product weight, NOT RACK MOUNTABLE. Use caution when moving or positioning your rack or cart so that it will not tip over, which may cause serious injury to you or your products.
- 13) Unplug this apparatus during a lightning storm or when unused for long period of time.
- 14) Refer all servicing to qualified service personal. Servicing is required when the apparatus has been damaged in any way such as: power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

This triangle, which appears on your component, alerts you to the presence of uninsulated, dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.







This triangle, which appears on your component, alerts you to important operating and maintenance instructions in this accompanying literature.



WARNING

External wiring connected to connectors marked with the triangle pictured at the left requires installation by an instructed person or the use of ready-made leads or cords.

WARNING

Do not remove the ground prong on the AC power cord. This will result in a safety hazard.

Safety First Earthquake Sound

Safety First

This documentation contains general safety, installation, and operating instructions for the 5-Channel and 7-Channel Power Amplifiers. It is important to read this users' guide before attempting to use these products. Pay particular attention to safety instructions.

The following symbols are used in this document:



Appears on the component to indicate the presence of uninsulated, dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.



Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in injury or death.



Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product.

Note: Calls attention to information that is essential to highlight.

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This document should not be construed as a commitment on the part of Earthquake Sound, Corp. The information is subject to change without notice. Earthquake Sound, Corp. assumes no responsibility for errors that may appear within this document.



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To Unpack

Cinénova Grande amplifiers are extremely heavy (100 Lbs +). They are shipped in a wooden crates for maximum protection and on occasion, the contents of the crate may shift during shipping. We urge you to follow instructions when unpacking the amplifier. The following procedure is designed to help you through the ABC of safe unpacking and connecting your new amplifier. In the event you have any question, please contact our toll free number at 1-800-576-7944 and ask for tech support.

1) OPENING THE CRATE



To open the crate, release the two latches holding the crate door. Slowly lift the crate door and inspect the content of the crate (padding, foam, ETC...).

2) REMOVING THE AMPLIFIER



This requires two people: one to lift the amp from its back and another to lift the amp from its front. Simultaneously lift the amplifier slowly in an upward motion using the front handles and the cover. This will ensure that you do not scratch the housing, or much worse: hurt your back or damage the amplifier.

Location Considerations

The Cinénova Power Amplifiers require care during installation to ensure optimal performance. These amps should be installed in or on an extremely sturdy and level surface with optimal breathing room (at least 2 inches of open space on all sides).

Pre-setup Earthquake Sound

Getting Started

Confirm the voltage setting of the amplifier. It must match the voltage in your home. The amp is set by factory to either 120V or 240V. Check above the circuit breaker for this information.

Amplification Block Plate.

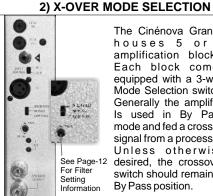
Power Plate



1) INPUT SELECTION



Set the input control to either RCA or XLR. This tells the amp which input type will be used.



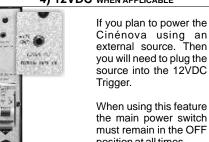
The Cinénova Grande houses 5 or 7 amplification blocks. Each block comes equipped with a 3-way Mode Selection switch. Generally the amplifier Is used in By Pass mode and fed a crossed signal from a processor. Unless otherwise desired, the crossover switch should remain in By Pass position.

3) SPEAKER CONNECTIONS



A pair of binding posts is provided for each channel. These posts accept bare wire, spade lugs & banana type plugs. If bare wire is used then, strip approximately 1/2 inch to 3/4 inch of insulation from the end of each wire and carefully twist the strands of each conductor together. Then insert.

4) 12VDC WHEN APPLICABLE



external source. Then you will need to plug the source into the 12VDC

When using this feature the main power switch must remain in the OFF position at all times.

5) PLUG IN POWER CORD



Plug the AC power cord into the amp first then into the wall outlet. Make the connection in place firmly.

6) TURN ON CIRCUIT BREAKER



This amp is equipped with a 20 ampere circuit breaker. Once that all tasks have completed then proceed to turn the circuit breaker to the on position.

Front Panel

1. Master Power Switch:

Turns the current to the amplifier ON or OFF manually. When turning on the amplifier via a 12VDC source the switch must be in the OFF position.

Additionally when adding or removing 12VDC connections or any other connections the main power circuit breaker needs to be in the off position. This will help prevent any surges that could damage your products or cause bodily injury.

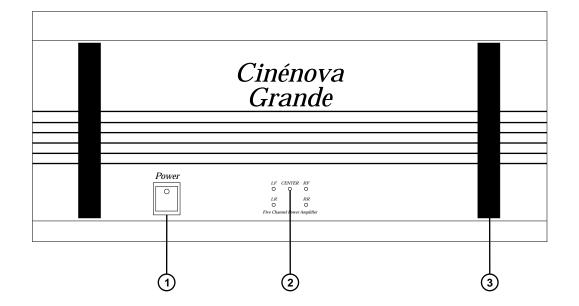
2. Peak LED Indicators:

The Cinénova Grande is equipped with five or seven LED indicators on the front panel that should remain unlit. These LEDs indicate the operating status of each corresponding channel. If an LED or all LEDs remain lit continuously, the amplifier is clipping that channel and the volume should be turned down immediately to prevent damage. Its ok for the LED to flicker but it should never remain on continuously.

3. Handles:

The front handles may be removed. The cover must come off first. You will need a 3mm hex driver for the front mounted screws.

CAUTION: Be sure that what ever is used to mount this amplifier on, is extremely strong and durable.



Panel Overview Earthquake Sound

Rear Panel

1. Replaceable Fuses:

Each mono block is equipped with two (10 Amperes) fuses designed to protect and monitor the voltage of operating rails (+/-). If a fuse burns out you may replace it with the following fuse size: 10A - 250V, 5mm x 20mm, mini fuse slow blow. If fuses continue to blow check for shorts in the wiring system.

2. RCA Input:

Accepts low-level signal from any source. It takes 1.6V to output the rated power.

3. Input Selector:

To maintain signal integrity Cinénova-7 provides you with an "Input Selector Switch". This gives you (installer) the option to select between RCA or XLR inputs.

4. Fully Balanced XLR Inputs:

We recommend the use of fully balanced XLR inputs in cases when the distance between the Cinénova and the audio source is excessive and susceptible to noise interference.

5. Three-way Crossover Switch:

A 3-way switch controls the operation of the output filter. The amp can run in full-range, low-pass, or high-pass mode to be used for different applications.

6. Variable Crossover 20Hz-5kHz:

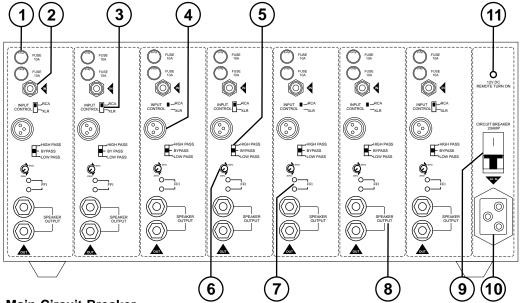
Each monaural block features a built-in variable filter to select the desired frequency range, with a slope of 12dB/Octave. The fully buffered filter has a range of 20Hz when set to minimum to 5 kHz when set to maximum. This V/R is inactive when crossover switch is in by-pass mode.

7. Fused Fault Indicators:

Each fuse carries its own fault LED indicator that illuminates when the fuse is burnt.

8. Gold Plated Speaker Output Binding Posts:

We recommend that you use a high quality wire constructed of fine, multi-strand copper 10-gauge and up. Wire with a gauge of 16 may be used for short runs of less than twenty feet. We do not recommend that you use any wires with a gauge equivalent of 18 or higher due to the power loss and performance degradation.



9. Main Circuit Breaker

The enormous amount of power generated by the amplifiers requires a stable 120 or 240V connection. Your amplifier is supplied with a heavy-duty 20A circuit breaker. If power to your amplifier is interrupted, check the circuit breaker on the rear of the unit. If the breaker is in the off position you may reset it to the on position to restore AC power. If the circuit breaker automatically trips to the off position.

To ensure proper operation, we recommend a dedicated 20amp circuit breaker because a proper power supply translates to better performance. Most homes are wired with 20A circuits, but there is a chance that the wall receptors are rated at 15A. IF IN DOUBT, CONSULT WITH AN ELECTRICIAN.



10. AC Input Connector

A special heavy duty - 20 Amperes - AC cord is included with every unit. Do not attempt to replace the AC cord with lesser quality AC cords.

11. 12VDC Trigger

In order for the Cinénova Turn-ON to be controlled via another source connect the 12VDC trigger input to the 12VDC source output (polarity is not an issue)>20ma. Then set the manual power switch to OFF and the circuit breaker to ON. Now any time the Cinénova detects an incoming 12VDC signal it will automatically power on.

Technology and Materials

EZXS Detachable Monaural Blocks:

Five or seven totally independent mono-block amplifiers each with its own power supply circuitry and pre-amplification stage for high fidelity audio reproduction. For ease of service, each block can be individually removed and serviced without the need to ship the entire amplifier. EZXS® is a trademark of Earthquake Sound Corporation.

Multiple Heat Sinks:

Over 500 square inches of heat radiating aluminum surface per channel maximizes heat exchange for cooler amplifier operation. The 12 gauge steel cover is perforated - top, sides & bottom- for effective air circulation.

Peak LED Indicators:

These LEDs monitor the corresponding channel's output level. The LEDs will come on only when the amplifier output reaches its maximum level, near 1% THD. If an LED flickers that is ok. If an LED should remain on for longer than 10 seconds then simply back the volume down slightly to maintain a stable level of output.

Thermal Protection:

Each monaural block is equipped with a thermal sensor designed to shut the amplifier down when it overheats. Overheating is not typical. It only occurs if the amplifier is over driven with low impedance speakers, or if the amplifier is located in an improperly ventilated space. The Thermal Protection Circuit will kick in at 85°C and release at 65°C. It is unusual for this amp to reach temperatures of this nature during normal or high power operation.

Individually Selected and Matched Components:

Components used to construct the Cinénova Grande are subjected to an exhaustive selection process; during which, the components are matched and individually tested to exact tolerances. Which leads to the impressively low idling current of 600mA for 5ch the Cinénova.

Toroid Power Transformer:

Each Cinénova contains a monstrous 4KVA high efficiency bifilar toroid transformer. This ferrite core transformer weighs over 30Lbs and is wound with oxygen free, 99% pure copper that minimizes transport losses. Hum suppression is accomplished by using a 12 gauge toroid mount, insulated with 10 layers of pressed foam.

Special Features

- Independent amplification blocks & power supplies (EZXS® detachable monaural blocks)
- Built-in line conditioner
- 5-channel and 7-channel configurations
- Soft Start Circuitry
- Fully balanced inputs
- 12VDC trigger input
- Three-way mode selection switch: High-pass, By-pass & Low-pass
- 20Hz-5kHz variable crossover for each channel
- Oversized bifilar toroidal power transformer with extraordinarily low DC resistance and thermal protection
- Fuse Fault Indicators
- · Thermal protection against overheating
- · Individually selected and matched components
- Speaker protection against DC and frequencies below 10Hz
- Protection against short circuits, device failures, miss wiring, and internal faults
- Heavy duty gold plated output terminals
- Front mounted removable handles

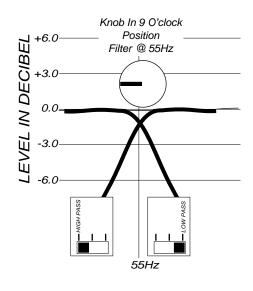
Note:

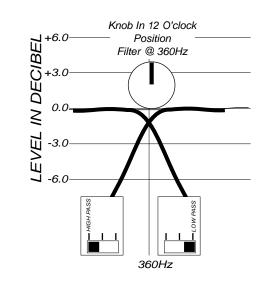
The soft start circuitry will cause a slight delay (around 6 seconds) between the time when the amplifier is switched on and the time when you hear any audio through the speakers. This time delay is essential as it slows down the rushing current at initial start up, allowing it to slowly charge the huge capacitor banks that power up the amplifier

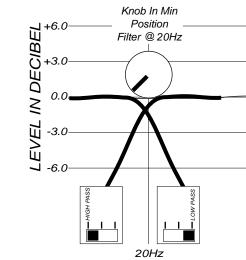
Filter Settings

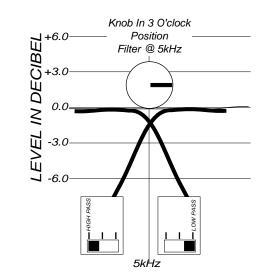
Each channel - monaural block - of the Cinénova Grande amplifiers comes equipped with a fully buffered variable filter (range: 20 Hz to 5000 Hz). Once a crossover point is selected, the block can be run in low pass or high pass configuration, simply by a flick of a 3-way switch; the filter can be bypassed by setting the switch to the full range position.

REFER TO THE FOLLOWING ILLUSTRATIONS FOR FILTER SETTING:









MODEL	Cinénova Grande
Number of Channels	5-channels / 7-channels
Power Rating Per Channel	 (8-ohm load), all channels driven: 360 Watts (4-ohm load), all channels driven: 610 Watts (2-ohm load), all channels driven: 810 Watts
Output Load Impedance	Safe with all loads from 2-Ohm to 16-Ohm
Input Impedance	- RCA: 28-kOhms - XLR: 48-kOhms
Input Sensitivity	- RCA: 1.6V - XLR: 2.4V
Voltage Gain (Av)	42V Gain Relative to 1 watt
Frequency Response	up to 50kHz ±0.1dB
Crossover Filter (low-pass/high-pass)	Variable Selector from 20Hz - 5kHz with a slope of 12dB/Octave
Total Harmonic Distortion + Noise	0.003% at 1 watt
Signal to Noise Ratio (A-Weighted)	Greater than -121 dB
Cross Talk / Channel Seperation	Greater than -110 dB from 17Hz to 40kHz
Slew Rate	55V/microsecond
Damping Factor	1600 at 8-Ohm, 800 at 4-Ohm, 400 at 2-Ohm
DC Output Offset	Less than 0.004V
Power Requirement	120 VAC/240 VAC Factory Pre-set
Chassis Dimensions (H x W x D)	9 1/4" x 18" x 21" (235mm)x(457mm)x(533mm)
Net Weight	Cinénova-5: 110 pounds / 49.9Kg Cinénova-7: 122 pounds / 55.3Kg
Shipping Weight	Cinénova-5: 134 pounds / 60.8Kg Cinénova-7: 148 pounds / 67.1Kg

¹RMS power, measured at 1% THD and 1kHz input frequency ²Adequate ventilation may be required and 240VAC/20 Ampere circuit is recommended

Troubleshooting

Amplifier "ON" No Sound

- a) Completely shut your system down, including your Cinénova via the circuit breaker.
- b) Now turn on the Cinénova only. Check to see if the front Main Power Switch is on.
- c) Check the Input Selector switch and make sure that it is in the correct position. Either RCA or XLR which ever you are using. Also slide the Input Selector switch back and forth to ensure good contact.
- d) Set the crossover switch so that it is centered. Slide it up and down and finally back to the middle position.
- e) Confirm that the output wires are connected to the speaker.
- f) Rock the crossover switch back & forth at the amplifier, you should hear a thump through the speaker during this process.

WHEN A THUMP IS HEARD>>>

- g) Check your input source signal. Make sure they are connected properly to output from processor/source, (not input of processor).
- h) Try to change source to make sure that at least one of the sources works.

WHEN NO THUMP IS HEARD>>>

- i) Check amplifier speaker connections.
- j) Make sure the speaker wires are securely connected to the amplifier speaker output and to the speaker. NOTE: It is possible that if you have proper connections and you don't hear sound, the speaker is burnt.

Peak LEDs "ON" Constantly

It is normal when running the amplifier to full power that the LEDs flicker. If the LEDs are on constantly without flickering (solid orange) it means that the amplifier output is clipping. Reduce volume level to prevent damage to speakers or amplifier.

Turn amplifier ON and circuit breaker shuts down

This can either be a short in amp, a poor circuit breaker in the house or the power cord is not fully connected. Plug amplifier into another outlet on a different circuit breaker with nothing connected. If the amp turns on then the problem is with your home circuit breaker. If the amplifier still does not power up, please call Earthquake to consult with a technician.

Humming noise from speakers

Often humming noise is emanating from equipment that have their ground prong broken. To isolate this problem:

- a) With the amplifier OFF, unplug all RCAs connected to the amp.
- b) Turn on amp and listen to speakers. If buzz has changed or reduced in level, then the problem is coming to the amp from another source. The rest of the hum you hear is normal and related to the fact that the RCAs are open ended.
- c) The above step should isolate your problem: star-ground all components, except amplifier, by daisy-chaining a thin wire from the processors chassis to all sources connected to it.

Maintenance

The following maintenance should be performed routinely:

- Clean the exterior surfaces of the unit with a soft, dry, lint-free cloth.
- Do not use alcohol, benzene, acetone-based cleaners, or strong commercial cleaners.
- Do not use a cloth made with steel wool or metal polish.
- If the unit is exposed to a dusty environment, a low-pressure blower may be used to remove dust from its interior & exterior.

If Problems Persist:

1. Contact Earthquake Sound Customer Service.

Phone: 1-800-576-7944 or

Email: tech@earthquakesound.com

NOTE:

Visit www.earthquakesound.com for answers to frequently asked questions and additional troubleshooting information.



