

Sound That Will Move You.

# *Cinénova-16*



**Multi source Multi room  
16-Channel Audio Controller/Amplifier  
Users' Guide**

## 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.

**CAUTION**

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

**WARNING**

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.

© 2005 Earthquake Sound, Corp. All rights reserved.

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.



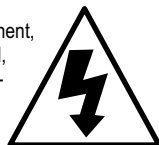
Earthquake Sound, Corp.  
2727 McCone Avenue  
Hayward, CA 94545  
Tel: 510-732-1000  
Fax: 510-732-1095

Customer Support  
tech@earthquakesound.com  
Tel: 800-576-7944  
Fax: 510-732-1095

## Important Safety Instructions

- 1) Read these instructions in their entirety.
- 2) Store this manual and packaging in a safe place.
- 3) Heed all warnings.
- 4) 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 than 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 point where they exit from the apparatus.
- 11) Only use attachments & accessories specified by the manufacturer.
- 12) Use only compatible rack or cart for final resting position.
- 13) Unplug this apparatus during lighting 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.



## 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.

**A** 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](http://www.earthquakesound.com/product-registration). Please also retain the bill of sale, which represents proof of purchase and helps expedite warranty issues.

We recommend that you place or write your serial number here for future reference, if necessary.

**SERIAL NUMBER**

## About The Cinénova Grande Amplifiers

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 multi-channel amplification, make the Cinénova Grande the cornerstone for a high-end home theater setup. This amplifier caters to both the music aficionado 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.

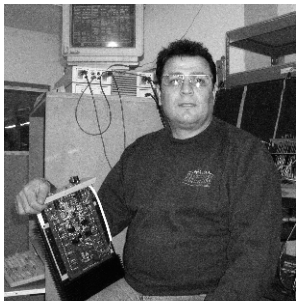
Earthquake Engineers, driven by their desire for excellence, pushed the envelop beyond its limits. They designed the "bi-file" toroidal transformer circuit witch allows five separate power supplies (one for each channel) to be magnetically coupled to one single primary 4KVA transformer. The 99% efficient 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*

## Unpacking system components

- Keep the original carton and packing materials for future shipment or storage.
- Check for any visual signs of damage. If you encounter any concealed damage, consult your Earthquake Sound dealer before proceeding to install the unit.
- Retain the sales receipt as it establishes the duration of the limited warranty and provides information for insurance purposes.

## Cinénova-16 included components

- Power cord
- Remote control (Optional)
- Remote gain
- Amplifier

## System installation considerations

There are several factors to consider before installing the Earthquake Sound Cinénova-16 system.

- What are the intended listening zones?
- What system options and accessories might be required for features such as local sources, etc.?
- From where in each zone will the listener prefer to control the system? Where will the remote gains be located? Where will the speakers be located.
- Where will the source equipment be located? The Cinénova-16 must have adequate ventilation above and below for air circulation and heat dissipation. In addition rack mount locations may require fans and vents.

## Connection tips

- It is recommended that the Cinénova-16 and the source equipment be plugged into dedicated 20-amp circuit with an isolated ground. A power line conditions can reduce interference problems caused by noise found in some electrical systems.
- Disconnect all live power cords before making connections to the remote gain.
- Keep all power cords away from all signal cables to prevent humming from induced noise.
- Choose reliable signal cables cords. (Earthquake Sound also specializes in high-performance RCA cables and patches).
- Label all wires with room location at both ends of the wire.

**Getting Started**

Documentation . . . . .2  
Safety Instructions . . . . .3  
Product Warranty . . . . .4  
About the Cinenova Grande Line of Amplifiers . . . . .5  
Unpacking . . . . .6

**Basic Operation**

Front & Rear Panel Over View . . . . . 8-10  
Special Features . . . . . 11

**Trouble Shooting & Maintenance**

Trouble Shooting & Maintenance . . . . .12

**Appendix**

Features & Specifications . . . . . 13  
Wiring Recommendations . . . . . 14-15

## Front Panel



1) Power/Standby switch

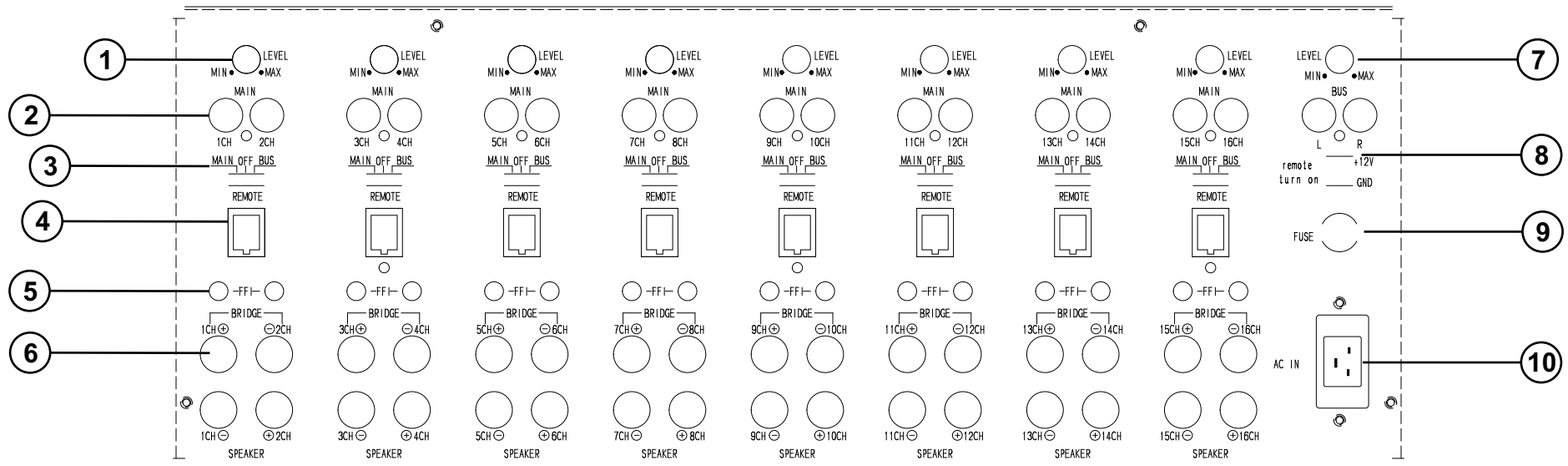
2) Channel Status LEDs

**Note:**

Each LED represents one channel. This particular model has 16-channels, so it has sixteen LEDs on the front panel.



## Rear Panel



- 1) Independent level controls for each channel
- 2) Gold plated RCA individual channel inputs allow you to connect different audio sources to each channel.
- 3) Source selection allows you to select between the common bus and auxiliary inputs, or the individual channel input.

- 4) Remote level controls for each channel (optional)
- 5) Fused Fault Indicators
- 6) Speaker output binding posts
- 7) Master level control, when channels are switched to bus.

- 8) Turn ON the amp via 12V DC trigger
- 9) Fused AC input
- 10) 3-Prong power connection

## Front Panel Overview

### 1. POWER SWITCH

Powers amplifier ON/OFF. Set this switch to OFF when making or breaking connections to the amplifier, or when changing the setting of the MODE switch. NOTE: 12-Volt DC trigger turns ON/OFF amp via another component (It overrides the switch position)

### 2. PEAK LED INDICATOR:

The Cinénova-16 is equipped with 16 LED indicators on the front panel. These LEDs indicate the operating status of each corresponding channel. If an LED or all LEDs remain lit continuously, the amplifier is clipping and the volume should be turned down immediately to prevent damage. If the LEDs are simply flickering, the amplifier is close to its limits and should not be pushed any further.

## Rear Panel Overview

### 2. LEVEL CONTROLS

Level controls for each channel to adjust volume individually.

### 1. RCA INPUT

Gold plated RCA individual channel inputs allow you to connect different audio sources to each channel.

### 3. SOURCE SELECTION SWITCH

Source selection allows you to select between the common bus and auxiliary inputs, or the individual channel input. The bus option allows a user to use one source input for several rooms.

### 4. REMOTE GAIN CONTROLS FOR EACH CHANNEL

Each room can run by an optional remote gain control designed reduce volume in each room.

### 5. FUSED FAULT INDICATORS

Though we have taken every conceivable precaution to ensure long lasting and trouble-free operation, occasionally a unit will malfunction. For that, we have made diagnostic simple: each mono block is equipped with two (10 Amperes) fuses designed to protect and monitor the voltage of operating rails (+/-). Each fuse carries its own fault LED indicator that illuminates when the fuse is burnt.

When one or more of these LEDs is illuminated, this means that unit needs maintenance or repair.

### 6. OUT PUT BINDING POSTS

Binding post speaker outputs allow users to split wires or use banana plugs for easy connections and bridging.

### 7. MASTER LEVEL CONTROL

Master level control, when channels are switched to bus.

### 8. 12-VOLT DC TRIGGER

Turn ON the amp via 12V DC trigger

### 9. FUSED AC INPUT

Built in main power fuse

### 10. 3-PRONG POWER CONNECTION

Easy to use and replaceable power connector.

## Special Features

### **Eight individual power supplies:**

The Cinenova-16 is designed with 8 individual power supplies for better over all sound quality and better channel separation.

### **Peak LED indicators:**

The Cinénova-16 is equipped with 16 indicators -LEDs- on the front panel. They show the operating status of each channel; the LEDs will illuminate when the maximum recommended output is exceeded. If an LED is illuminated the majority of the time, it indicates that the corresponding channel is over-driven (clipped). The input to the channel must be reduced to eliminate distortion and eventually, damages to the amplifier.

### **Thermal protection:**

Each channel 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.

### **Individually selected and matched components:**

Components used to construct the Cinénova-16 are subjected to an exhaustive selection process; during which, the components are matched and individually tested to exact tolerance. The multi-layer, glass-epoxy, double sided printed circuit boards exceed the standard stringent requirements by 50%.

### **8-Zones:**

The Cinenova-16 delivers up to 8-zones, and several other room combinations to better suite the your needs.

### **Rack mountable:**

This amplifier is designed to conveniently mount in commonly used racks.

### **220V AC and 110V AC selectable:**

Earthquake Sound designs all of it's high performance amplifiers to be used in almost all scenarios which may require different voltage ratings.

### **Remote zone control:**

Each of the eight possible zones can be controlled by an external (optional) remote. This features allows you to completely shut down specific zones, control volume and other connected components.

### **Bus input:**

This feature simplifies installation by consolidating several channels for one source. Simply plug the input source RCAs into the BUS input on the unit. Then switch the input source selector to BUS for as many channels are connected to the corresponding input source.

### **Bridgeable function (Bridgeable stable not less than 4-ohm):**

The Cinenova-16 delivers up to 8-zones, and can be bridged into several different configurations for higher power rooms.

### **4 or 8-ohm compatible:**

Since speakers are manufactured in several different impedance ratings, Earthquake Sound's new 16-Channel amplifier is designed to be 4 and 8-Ohm compatible.

## Troubleshooting

### Humming noise from speakers.

Often humming noise is emanating from equipment that have their ground prong broken.

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 and not connected to any thing.

c) If above steps do not isolate your problem: star-ground all components except amplifier from their chassis to the processor.

### Front LEDs are ON all the time

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

### Turn amplifier ON and circuit breaker shuts down

This can either be a short in amp or poor circuit breaker in the house. 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.

### If you are still stuck...

1. Contact an authorized Earthquake Dealer.
2. Contact Earthquake Sound Customer Service.

## MAINTENANCE

The following routine maintenance should be performed on a periodic basis:

- 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.

## Note:

Visit [www.earthquakesound.com](http://www.earthquakesound.com) for answers to frequently asked questions and additional troubleshooting information.

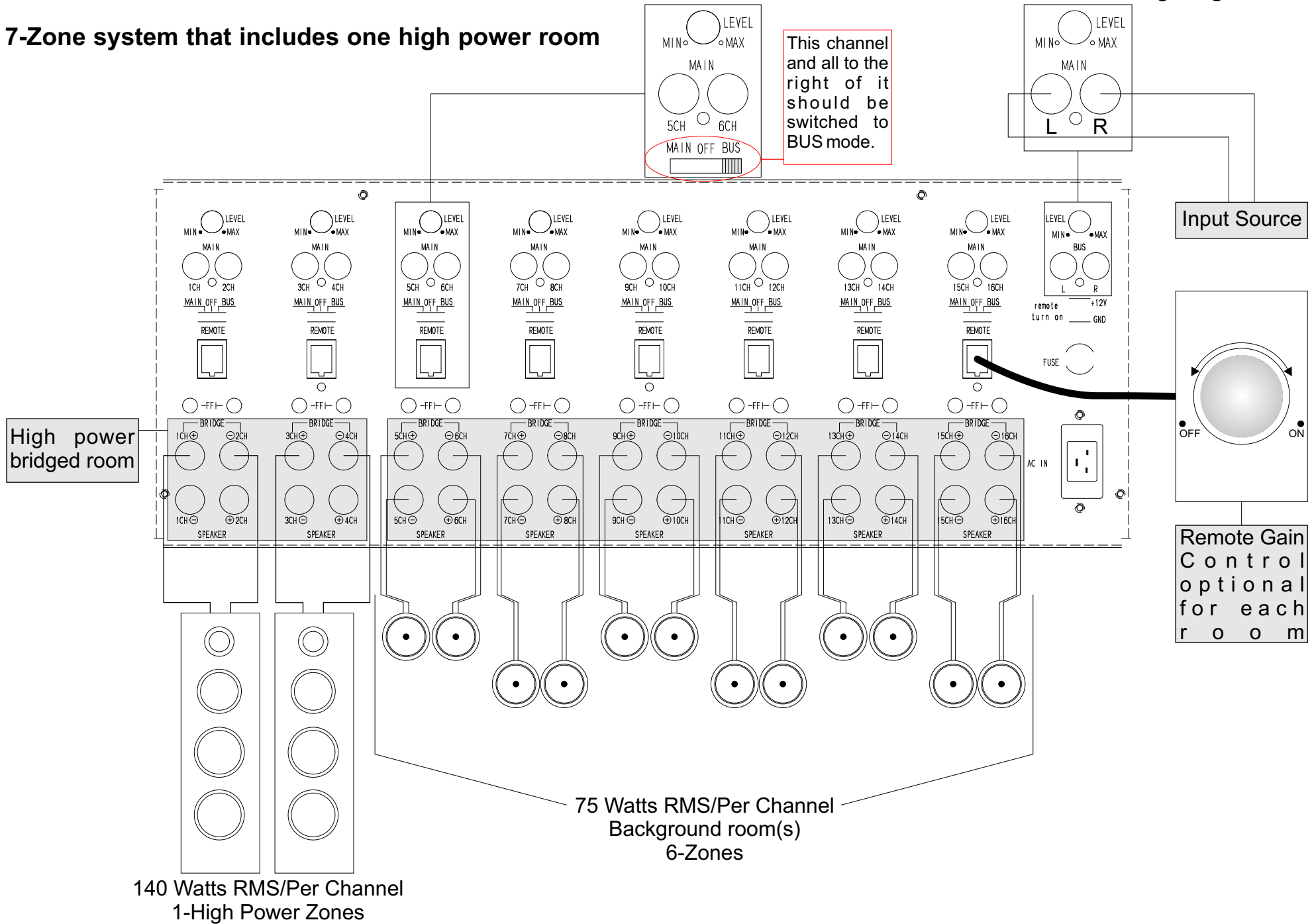
## FEATURES

- Short current protection, overload protection, Thermal protection
- Soft start
- Individual channel control
- BUS Input - BUS gain control
- LED Clipping indicators
- Bridgeable function (Bridgeable stable not lower than 4-Ohm)
- 220V AC and 110V AC selectable
- 12-Volt trigger
- Easy Stereo/Bridged binding post connections

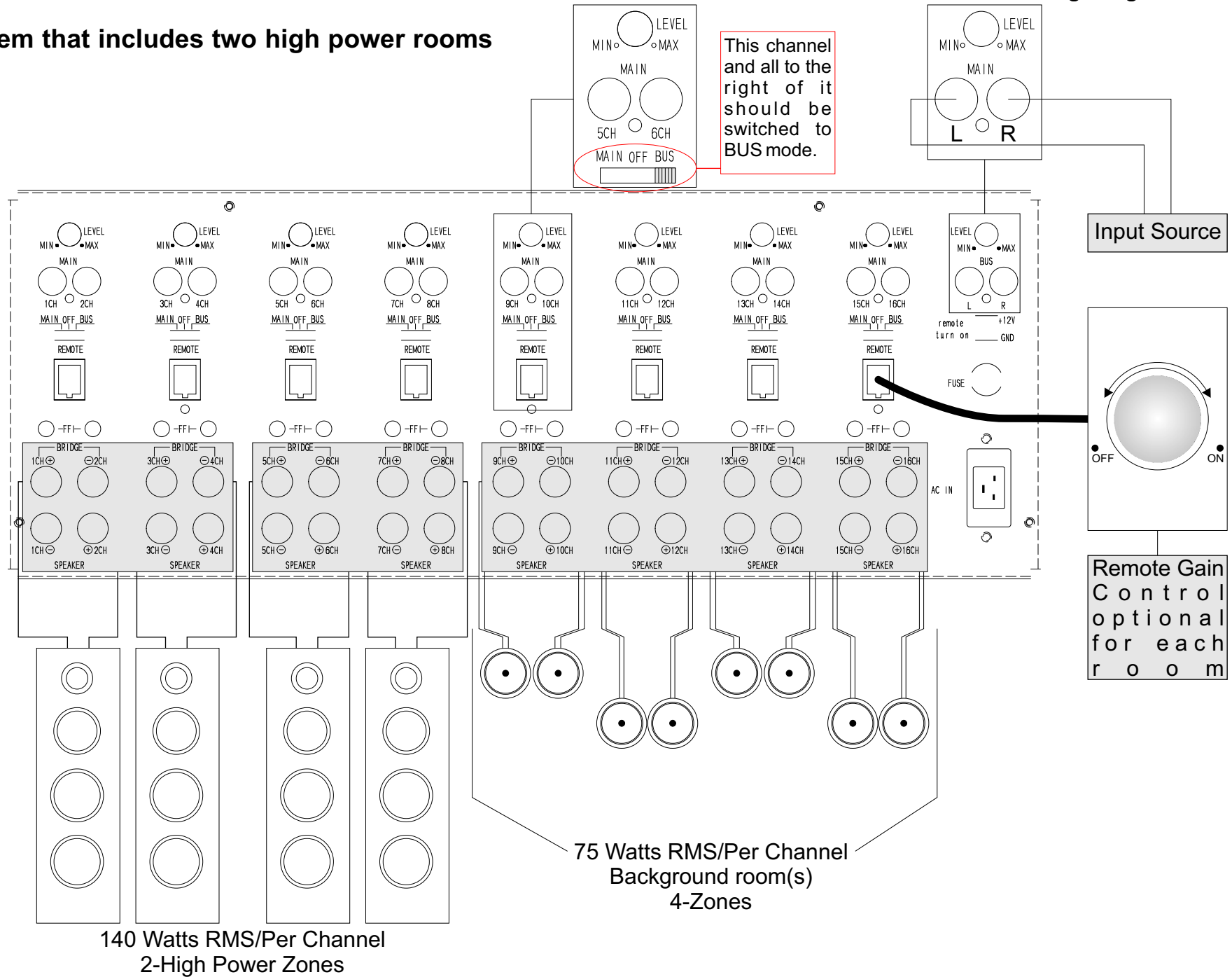
## SPECIFICATIONS

- **Number of channels:**  
16-Channels
- **Power rating per channel:**  
(8-ohm load), all channels driven: 75 Watts RMS
- **Frequency response measured at 1 watt with +/- 0.1 dB:**  
20 Hz to 20 kHz
- **Channel separation:** greater than 60 dB
- **Maximum input voltage:** 100mV – 2V (RMS)
- **Input impedance:** 19 kilo-ohms
- **Total harmonic distortion - THD:** 0.1%
- **Signal to noise ratio measured:** -83 dB
- **Dimensions 16-Channel: (HxWxD)**  
6.5" (165.1mm) x 17" (431.8mm) x 17" (431.8mm)
- **Weight :**  
44 lbs

### 7-Zone system that includes one high power room



### 6-Zone system that includes two high power rooms





Earthquake Sound reserves the right to amend details of the specifications without notice.  
Copyright © Earthquake Sound Corporation  
Earthquake Sound Corporation • 2727 McCone Avenue Hayward CA, 94545  
Phone: 510-732-1000 Fax: 510-732-1095