

*please the senses,*

# *Nova*

*amplify yet simplify,*

*fill with fullness,*

*beyond the boundaries,*

## *Power From The Heavens*

*space but not displace,*

*transcend the ordinary*

*Cinénova Grande  
Technical Guide*

*elevate the spirit,*

*soothe to submission,*

*beyond the boundaries,*

*beyond the boundaries,*



*fill with*

*fullness,*

*space but not displace,*

*unbound the boundaries,*

*This amp brings new meaning to the phrase "gentle giant".*

*Home Theater Magazine, June 2000.*

*quantity with quality,*

*recover the exhausted,*

*expand the compressed,*

*elevate the spirit,*

*reproduce with accuracy*

*space but not displace,*

*articulate sound,*

*please the senses,*

*optimize with no compromise,*

*redefine the obscure,*

## On A Personal Note...

*Dear Valued Customer.*

*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.*

*The Cinénova Grande topology 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, it 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 three-channel and five-channel Cinénova grande amplifiers. The "Alpha One" blocks are individually removable using the Earthquake patented "EZXS" system, and 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.*

*Joseph J. Sahyoun*



*Professor Joseph J. Sahyoun  
- Vice President & Chief Engineer,  
holding the "Alpha One" module (1000 watts +).  
The building block of the Cinénova Grande amplifiers.*



*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.*



## Unpacking Your Cinénova Grande Amplifier:

*Be careful, DON'T hurt your back, recruit a friend to help you unpack this amplifier.*

*The Cinénova Grande is a heavy amplifier (136 Lbs +), it is shipped in a wooden crate for maximum protection; occasionally, the crate content 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, first 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 one to lift the amp from its front simultaneously. Lift the amplifier slowly in an upward motion, use the front handles and the cover; ensuring that you do not scratch the housing, or much worse drop the amplifier.*

### 3 Confirm VOLTS setting



*Confirm the voltage setting of the amplifier. It must match the voltage in your home. The amp is set by factory to either 110 V or 220V. Check sticker to confirm setting.*

### 4 Reset circuit breaker



*This amp is equipped with a 20 ampere circuit breaker. Plug the AC power cord into the amp and the wall, then reset the circuit breaker to ON position.*

### 5 Turn power switch ON



*Turn the power switch ON. When the red light turns on, proceed to step 6.*

### 6 Check "FFI" LED indicators



*Each amplifier block comes equipped with 2 FAULT LED indicators. These indicators are designed to light up when a module is malfunctioning. Normally, a lit LED indicates that the rail voltage fuse is burnt, and it requires replacement.*

### 7 Set crossover switch to Bypass



*- full range*

*The Cinénova Grande houses 5 amplification modules. Each module comes equipped with a variable filter that can be controlled with a 3-way switch. Generally, the amplifier is used in full range mode, and it is fed a crossed signal from a processor. Unless otherwise desired, the crossovers switches should remain in the "BYPASS" position.*

# Your Cinénova Grande Performance Sheet:

Date:

Five-Channel Cinénova Grande

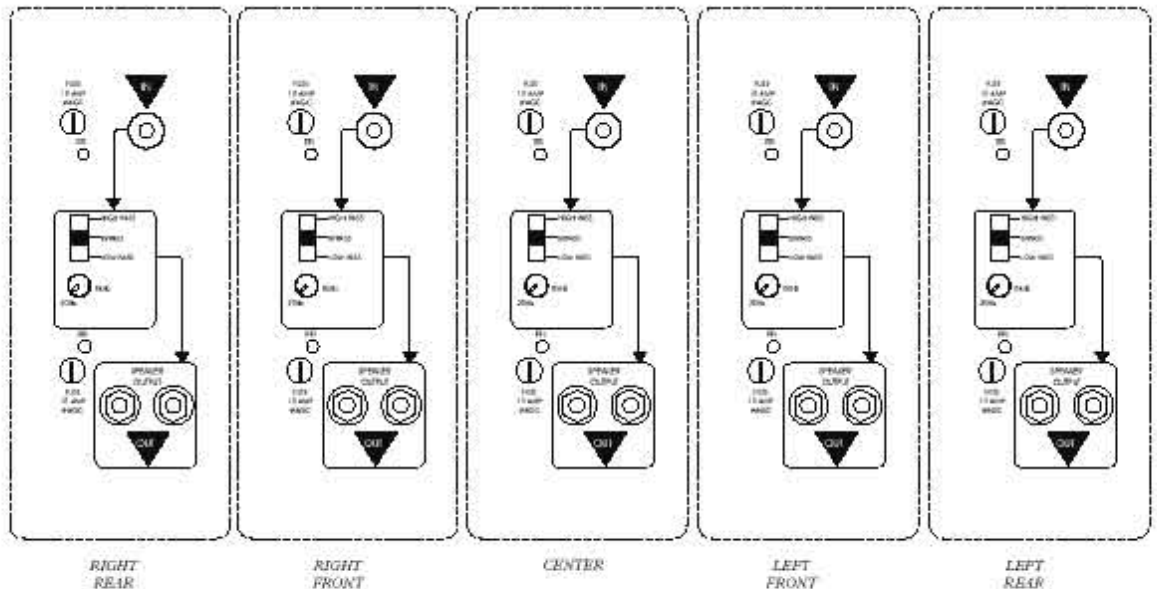
Three-Channel Cinénova Grande



In an honest effort to provide you with accurate and precise information about the Cinénova Grande amplifier you have just purchased, Earthquake Sound Corporation would like you to be informed and aware of what is considered good, bad and reference in the high end audio industry.

The numbers shown below are the distortion (THD) and the signal to noise (S/N) measurements for your amplifier. Please note that all measurements are made with 4-ohms dummy loads connected to each individual channel; using the Audio Precision ATS1 - one of finest test machines available, connected to oscilloscope. This amplifier is designed to handle loads from 2 ohms all the way to 8 ohms, and to provide you with accurate, clean music reproduction.

According to the industry standards, a signal to noise of 90dB to 100dB is considered "very good", and 100dB as being "excellent". Every time you increase the S/N by 3dB, you are reducing the noise by a "half level". With this in mind, please read through the test results of your Cinénova Grande, and compare these numbers to other manufacturers numbers. Only then, you will realize how great of a performer your amplifier is.



Signal to noise target 105dB					
THD+noise target 0.05					

Test performed by:

## Design philosophy:

*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.*



*Black Finish*



*Platinum Finish*

*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.*

## Technical data:

*The Cinénova Grande 5-channel and 3-channel amplifiers share identical designs in power supply and amplification modules. The monaural blocks used in both models are identical in design and performance, they are basically interchangeable.*

- \* Number of channels: Five-channel Cinénova - (5) discrete monaural blocks.  
Three-channel Cinénova - (6) discrete monaural blocks.
- \* Power rating per channel (8-ohm load), all channels driven: 300 watts.  
(4-ohm load), all channels driven: 600 watts.  
(2-ohm load), all channels driven: 1000 watts.
- \* Frequency response measured at 1 watt with +/- 0.1 dB: 20 Hz to 20 kHz.
- \* Channel separation: greater than 95 dB.
- \* Maximum input voltage: 1.9 volts.
- \* Input impedance: 27,000 ohms.
- \* Total harmonic distortion - THD: 1 kHz, 8-ohm load: 0.001%.  
20 kHz, 8-ohm load: 0.003%.  
1 kHz, 4-ohm load: 0.003%.  
20 kHz, 4-ohm load: 0.006%.  
1 kHz, 2-ohm load: 0.005%.  
20 kHz, 2-ohm load: 0.006%.
- \* Signal to noise ratio measured:  
at 1 kHz: 112 dB.  
at 5 kHz: 111 dB.  
at 10 kHz: 110 dB.
- \* High-pass / low pass variable filter, range 20 Hz to 5 kHz (one per channel).
- \* High-pass/Full range/Low pass operation via 3-way switches (one switch per channel).
- \* Dimensions: 9.25" x 18" x 21" (height x width x depth) both models.
- \* Weight : Five-channel - 125 lbs.  
Three-channel - 98 lbs.
- \* Finish : both models available in Black or Platinum.



## Special features:

### \* Toroid power transformer:

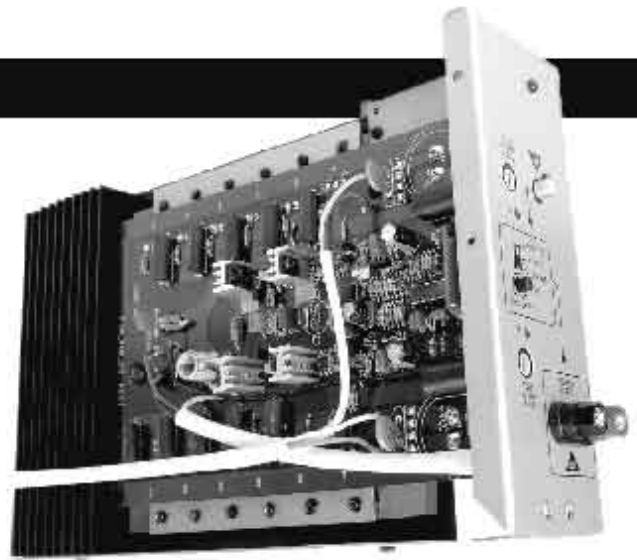
A monstrous 4KVA, ferrite core, high efficiency toroid transformer weighting 40 Lbs. Oxygen free, 99% pure copper winds that minimize transport losses. 12 gauge toroid mount, insulated with 10-layer of pressed foam for maximum hum suppression. A 20 amperes circuit breaker protects the Cinénova Grande from power surges and shorts.

### \*EZXS detachable monaural blocks:

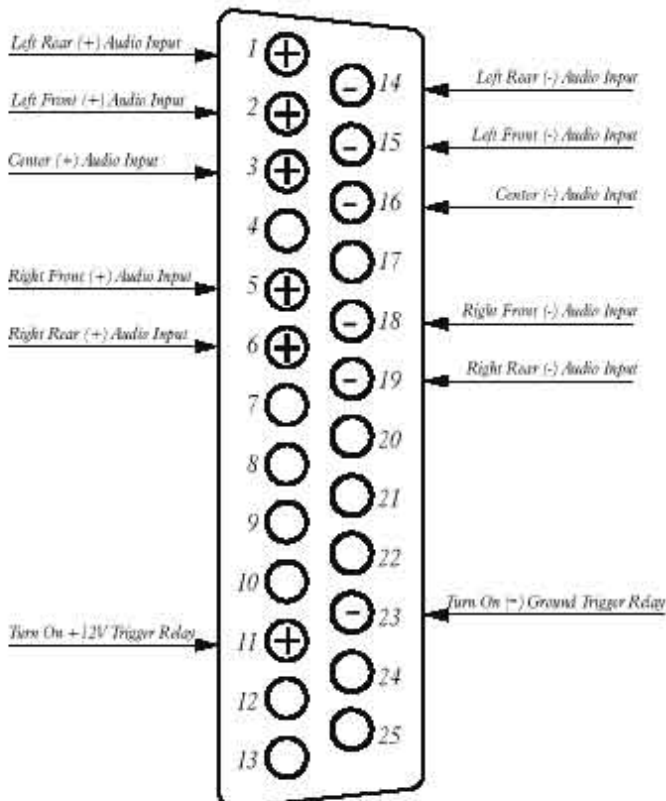
Five, totally independent, mono-block amplifiers (15 ampere capability); each with its own power supply circuitry and pre-amplification stage. For ease of service, each block can be individually removed and serviced, without the need to dismantle the entire amplifier. EZXS is a trademark of Earthquake Sound corporation.

### \* Integrated Low-pass & High pass variable filters:

Each monaural block features a built-in low pass/high pass variable filter; the fully buffered filter has a range of 20 Hz to 5 kHz. A 3-way switch controls the operation of the filter; with a simple flick of the switch, the amp can run in full range, low pass, or high pass mode.



Five Channels  
Cinénova Grande  
Parallel Input Connector



### \* Parallel port connection / 5-channel amplifier:

A 25-pin parallel connector houses five RCA inputs and a remote turn-on trigger. This connector is standard, and can be purchased from your dealer or any electronics store. It is configured as follows:

- Pin # 1 (+ left rear audio input)
- Pin # 14 (- left rear audio input)
- Pin # 2 (+ left front audio input)
- Pin # 15 (- left front audio input)
- Pin # 3 (+ center audio input)
- Pin # 16 (- center audio input)
- Pin # 5 (+ right front audio input)
- Pin # 18 (- right front audio input)
- Pin # 6 (+ right rear audio input)
- Pin # 19 (- right rear audio input)
- Pin # 11 (+12VDC remote trigger - turn on)
- Pin # 23 (- remote trigger - turn on)

## Special features:

### \* Parallel port connection / 3-channel amplifier:

A 25-pin parallel connector houses three RCA inputs and a remote turn-on trigger. This connector is standard, and can be purchased from your dealer or any electronics store. It is configured as follows:

- Pin # 1 (+ left audio input)
- Pin # 14 (- left audio input)
- Pin # 3 (+ center audio input)
- Pin # 16 (- center audio input)
- Pin # 6 (+ right audio input)
- Pin # 19 (- right audio input)
- Pin # 11 (+12VDC remote trigger - turn on)
- Pin # 23 (- remote trigger - turn on)

### \* Individually selected and matched components:

Components used to construct the Cinénova Grande are subjected to an exhaustive selection process; during which, components are matched and individually tested to exact tolerance. The multi-layer, glass-epoxy, double sided printed circuit boards exceeds by 50% the military stringent requirements; we use 3 oz copper tracers. Each block hosts twenty 15 Giga-Hz ultra high current Toshiba transistors.

### \* Fused operation indicators:

Though we have taken every conceivable precaution to ensure long lasting, and trouble-free operation; occasionally a unit will malfunction. For that, we 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.

### \* Multiple gigantic heat sinks:

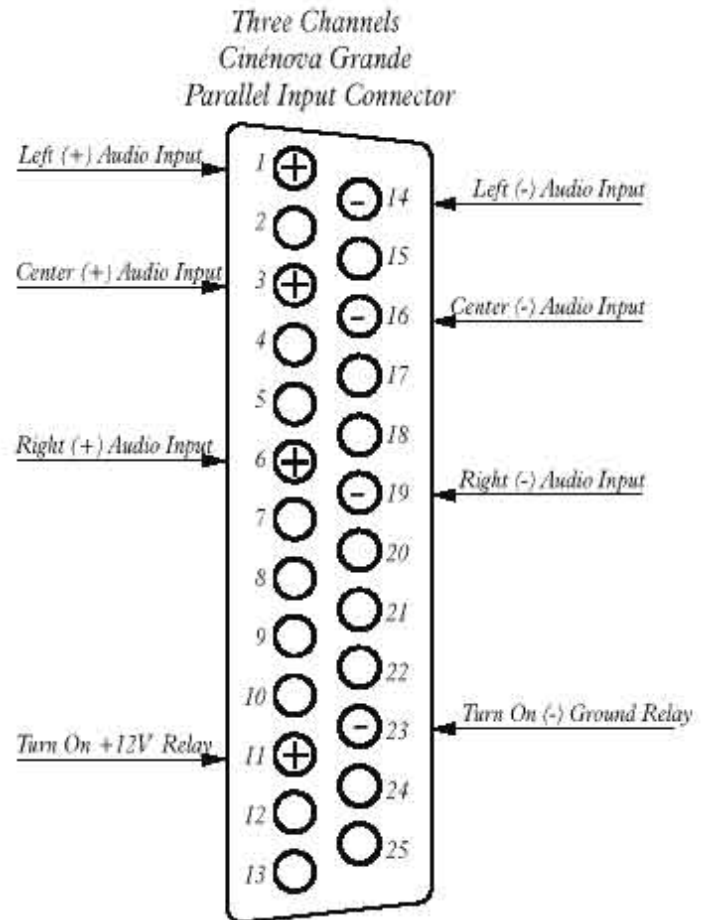
Over 500 square inches of heat radiating aluminum surface - per channel, maximize heat exchange for cooler amplifier operation. The 12 gauge steel cover is perforated - top and sides- for effective air circulation.

### \* Peak LED indicators:

The Cinénova Grande is equipped with five 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 monaural block is equipped with a thermal sensor, designed to shut down the amplifier 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.



## Power requirements:

The Cinénova Grande amplifiers integrate multiple channels of amplification (3 & 5), each channel-block is capable of producing up to 1000 watts when driven in 2-ohm load. The enormous amount of power generated by the amplifiers requires a stable 110/220V connection.

The Cinénova Grande amplifiers come equipped with a 20-ampere circuit breakers (on the back plates) designed to prevent damages to the unit in case of abnormal AC power surges and deviations; do not replace the breaker without consulting with an Earthquake technician. 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.

To ensure proper operation, make sure that a 20-Ampere circuit is available where the amplifier is going to be plugged. If in doubt, consult with an electrician; most homes are wired with 20-Ampere circuits, but there is a chance that the wall receptors are rated only 15 Amperes. After all, proper power supply translates into better performance. **CALL AN ELECTRICIAN FOR ASSISTANCE.**



## Input and output connections:

All channels of the Cinénova Grande amplifiers are identical in construction and performance; they can be used interchangeably to fulfill your system power needs. In order to simplify the amplifier connection, our designers chose to identify each channel individually.

### *5-channel amplifier:*

- \* Right Rear
- \* Right Front
- \* Center
- \* Left Front
- \* Left Rear



### *3-channel amplifier:*

- \* Right
- \* Center
- \* Front

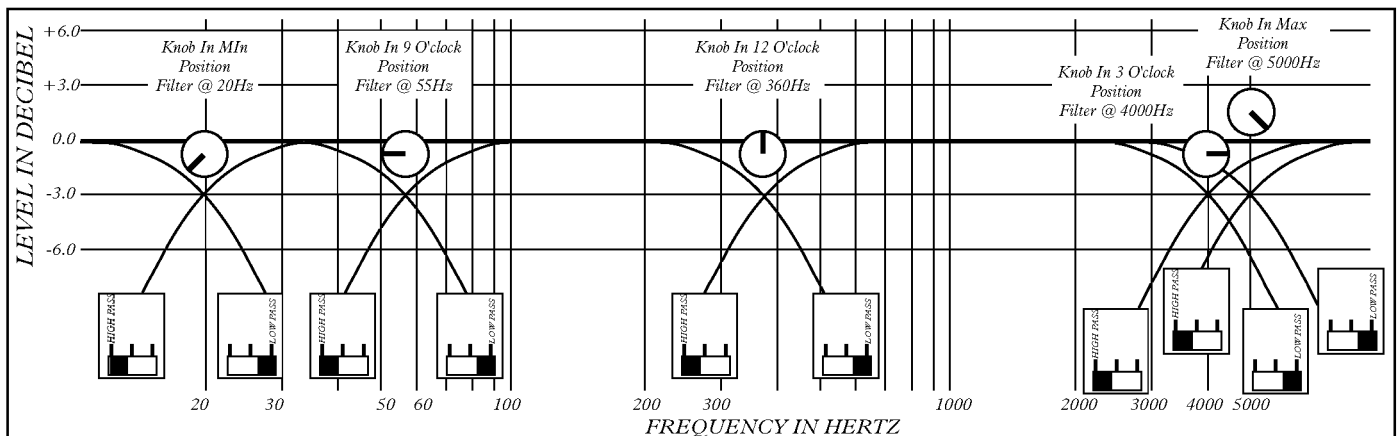
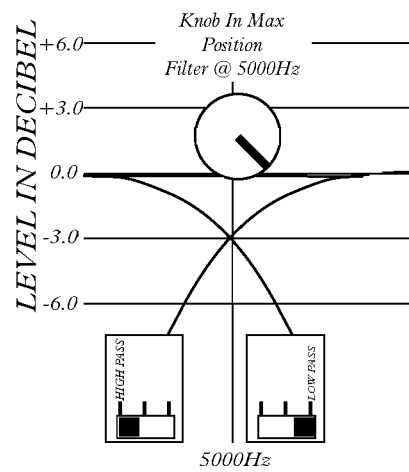
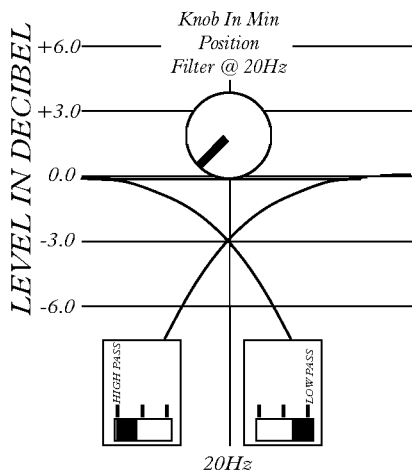
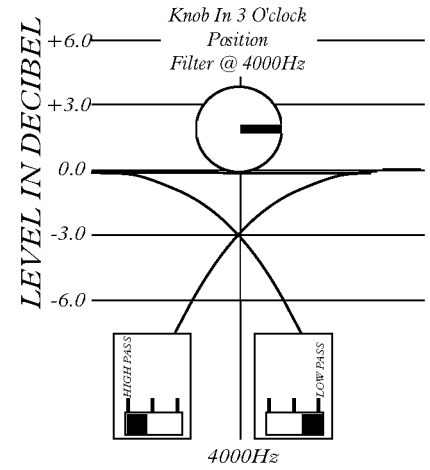
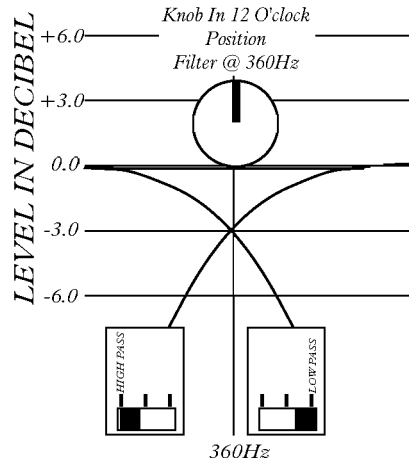
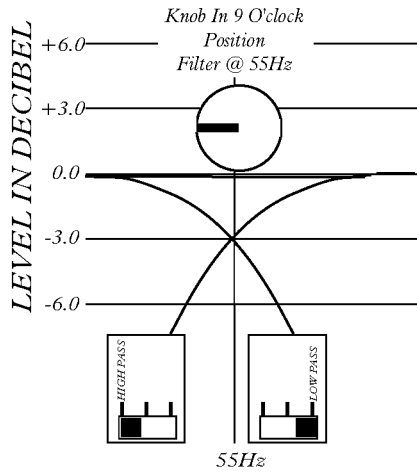


The process is simple, connect each channel to the corresponding output from your pre-amplifier / signal processor; note that the majority of today's signal processors carry identical markings as the Cinénova's. Each channel (mono block) has one RCA jack, with a maximum input of 1.9 volts (rms); always refer to the owner manual to determine the output capability of your pre-amplifier / signal processor. Each amplifier block is equipped with a touch-proof single speaker post, capable of accommodating up to a 10-gauge speaker cable. Banana plugs are used for easy connection.



# Cinénova Grande filters:

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 is bypassed by setting the switch to the full range position. Refer to the following illustrations for filter setting:



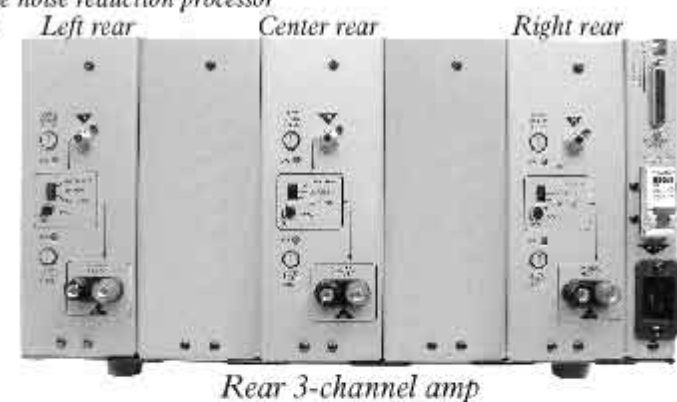
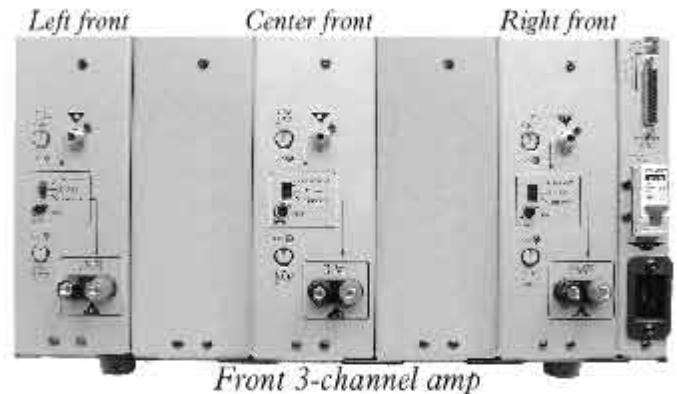
## 6.1 surround system using two 3-channel Cinénova amps:

The left and right channels- Front- contain the full audio bandwidth. The left and right speakers reproduce the full frequency range, have good balance, match each other closely, provide adequate loudness capability, and feature low distortion.

The center channel - Front carries dialogue and keeps it firmly centered on the screen regardless of where you're seated. Ideally, the center speaker and amplification would be the same as used for the left and right channels.

The surround channels - Rear. Upon playback, the surround channel signal passes through a 7 kHz low-pass filter and a modified Dolby B-type noise reduction processor in the decoder to reduce both noise and distracting high frequency signals that might leak through from the front channels. The surround signal is also delayed slightly to increase the apparent separation between the front and surround channels.

The center channel - Rear carries dialogue and keeps it firmly centered. Ideally, the center speaker and amplification would be the same as used for the surround channels.



## 5.1 surround system using one 5-channel amp :

The left and right channels- Front- contain the full audio bandwidth. The left and right speakers reproduce the full frequency range, have good balance, match each other closely, provide adequate loudness capability, and feature low distortion.

The center channel - Front carries dialogue and keeps it firmly centered on the screen regardless of where you're seated. Ideally, the center speaker and amplification would be the same as used for the left and right channels.

The surround channels - Rear. Upon playback, the surround channels signal passes through a 7 kHz low-pass filter and a modified Dolby B-type noise reduction processor in the decoder to reduce both noise and distracting high frequency signals that might leak through from the front channels. The surround signal is also delayed slightly to increase the apparent separation between the front and surround channels.

