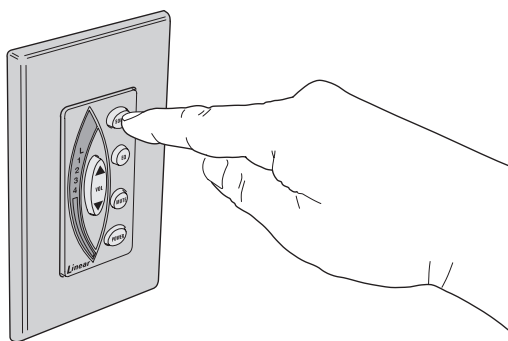




# ***Multi-Room Audio Distribution System***



## ***User's Guide***



***Linear***<sup>®</sup>  
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# Safety Information and Cautions

## Explanation of Graphic Warning Symbols

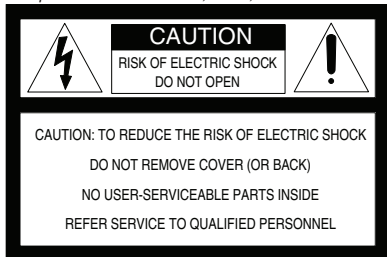


This symbol is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the device.

★ **WARNING!** To prevent fire or shock hazard, do not expose this device to rain, water, or wet locations.



## General Wiring Cautions

- DO NOT USE EXCESSIVE FORCE ON PUNCH-DOWN TERMINALS! IF USING AN IMPACT TYPE 110 PUNCH-DOWN TOOL, SET THE FORCE ADJUSTMENT TO "LOW" BEFORE TERMINATING CAT-5 CABLES.
- The 120 VAC line to the structured wiring enclosure's junction box must be run by a licensed electrician.
- Individual CAT-5 cable runs from the hub to any keypad or audio input wall plate should not exceed 500 feet.
- Label all cables for identification at the hub.
- DO NOT SPLICE CABLES! Splices are unreliable and defeat the signal isolation properties of the cable.
- DO NOT STAPLE CABLES! Staples cause shorts.
- DO NOT RUN 120 VAC ELECTRICAL WIRES INSIDE STATION JUNCTION BOXES. If you encounter 120 VAC wires running through station junction boxes, you must have a qualified electrician rerun those wires around the junction box.
- KEEP CABLES AT LEAST 18 INCHES FROM FLORESCENT LIGHT FIXTURES, DIMMER CONTROLS, AND ALL OTHER WIRING. This includes AC wiring, security cable, cordless phone units, and other control wires. These can cause a "hum" or "buzzing" sound.
- Keep all cables away from objects such as heating and air conditioning ducts, metal construction plates, and anything else with sharp edges that can damage cables.

## Keypad Cautions

- DO NOT install room stations in saunas. They will not withstand the extreme heat or moisture.

## Important Safety Notes



**POWER SOURCE** This unit should only be connected to a 110-120 VAC power source as marked on the unit.



**GROUNDING OR POLARIZATION** 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 are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.



**NON-USE PERIODS** Always turn the unit off and unplug when it is not being used or left unattended for long periods of time.



**OBJECT AND LIQUID ENTRY** Never push objects of any kind into the unit through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.



**CLEANING** Unplug the unit from the wall outlet before cleaning or polishing it. Do not use liquid cleaners, aerosol cleaners, gasoline or other flammable fluid. Clean the exterior of the unit with a slightly damp cloth.



**WATER AND MOISTURE** Do not use power line operated units near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.



**VENTILATION** The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the unit should not be situated on a bed, sofa, rug or placed in a built-in installation that may block the flow of air through the ventilation openings.



**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 paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.



**READ INSTRUCTIONS** All the safety and operating instructions should be read before the product is operated.



**RETAIN INSTRUCTIONS** The safety and operating instructions should be retained for future reference.



**HEED WARNINGS** All warnings on the product and in the operating instructions should be adhered to.



**FOLLOW INSTRUCTIONS** All operating and use instructions should be followed.



**ATTACHMENTS** Do not use attachments not recommended by the product manufacturer as they may cause hazards.



**ACCESSORIES** Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.



**OVERLOADING** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.



**REPLACEMENT PARTS** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.



**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.



**WALL OR CEILING MOUNTING** The product should be mounted to a wall or ceiling only as recommended by the manufacturer.



**HEAT** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

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# Introduction - Your Multi-Room Audio System

Your Encore Multi-Room Audio System is an expandable system that distributes four analog or digital audio sources to independent stereo speaker zones located in different rooms. With the appropriate amount of system “hubs”, each installation can distribute audio to a maximum of 32 speaker zones.

## Keypads

Each speaker zone features a backlit keypad with an integrated digital amplifier. The keypads provide the ability to select up to five audio sources and control the volume, tone, balance, loudness, and several other functions of the system.

## Source Inputs

Your installation includes up to four Source Input Wall Plates that serve as a connection point for your audio equipment. Audio outputs from your source components connect to these wall plates providing audio to the system hub for distribution to each keypad.

## Local Inputs

In rooms with a keypad, a Local Input Wall Plate may also be installed. These serve as a connection point for a local audio source, such as an mp3 player, TV, computer, or game box.

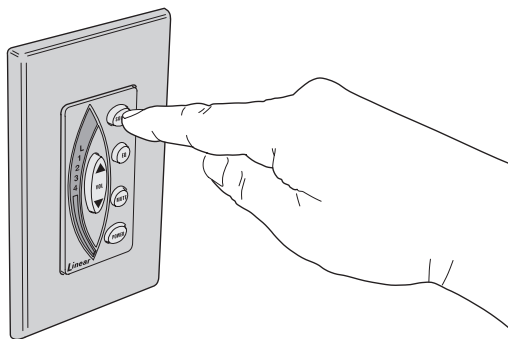
## Remote Control

The system features infrared (IR) remote control. Two remote controls are available. The Basic Remote Control is a miniature unit that can select the audio source, control the volume, mute, and power. The larger Learning Remote Control has all of the features of the basic remote with the addition of a built-in IR code library and IR learning capability allowing it to control virtually any audio source component through the system. The learning remote also has macro capabilities that allow programming multiple key sequences.

At each keypad, IR signals received from any IR remote control are passed onto your audio source components allowing you to use your standard remote controls.

## Features

- Digital audio delivers crystal clear sound to all zones with no signal loss
- Class D digital amplifier in each keypad with 60 watts output power
- Four speaker zones expandable to 32 speaker zones
- IR receiver built into each room station, IR emitter output on source input wall plates



## System Overview

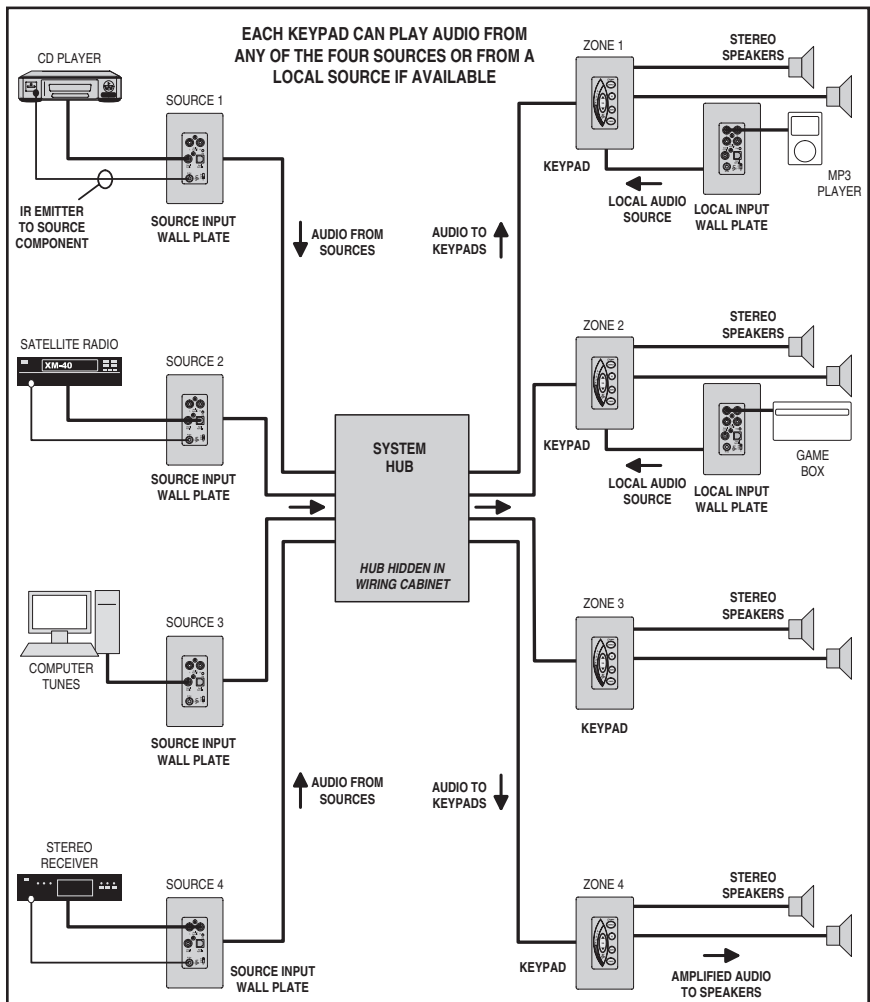
The diagram below shows how the signals flow through your Multi-Room Audio System.

Audio from the source components enter the source input wall plates and are routed to the system “hub”. The system hub is usually hidden in a wiring cabinet.

The keypads also connect to the system hub. Each keypad can select any of the sources connected to the hub.

Each keypad connects to a pair of stereo speakers. Each keypad has an integrated built-in digital amplifier to power its speakers.

All the audio signals, from the wall plates to the hub, and from the hub to the keypads are “digital”. Any analog audio sources connected to the wall plates are converted to digital audio signals. The digital signals provide crystal clear sound to all zones with no signal loss.

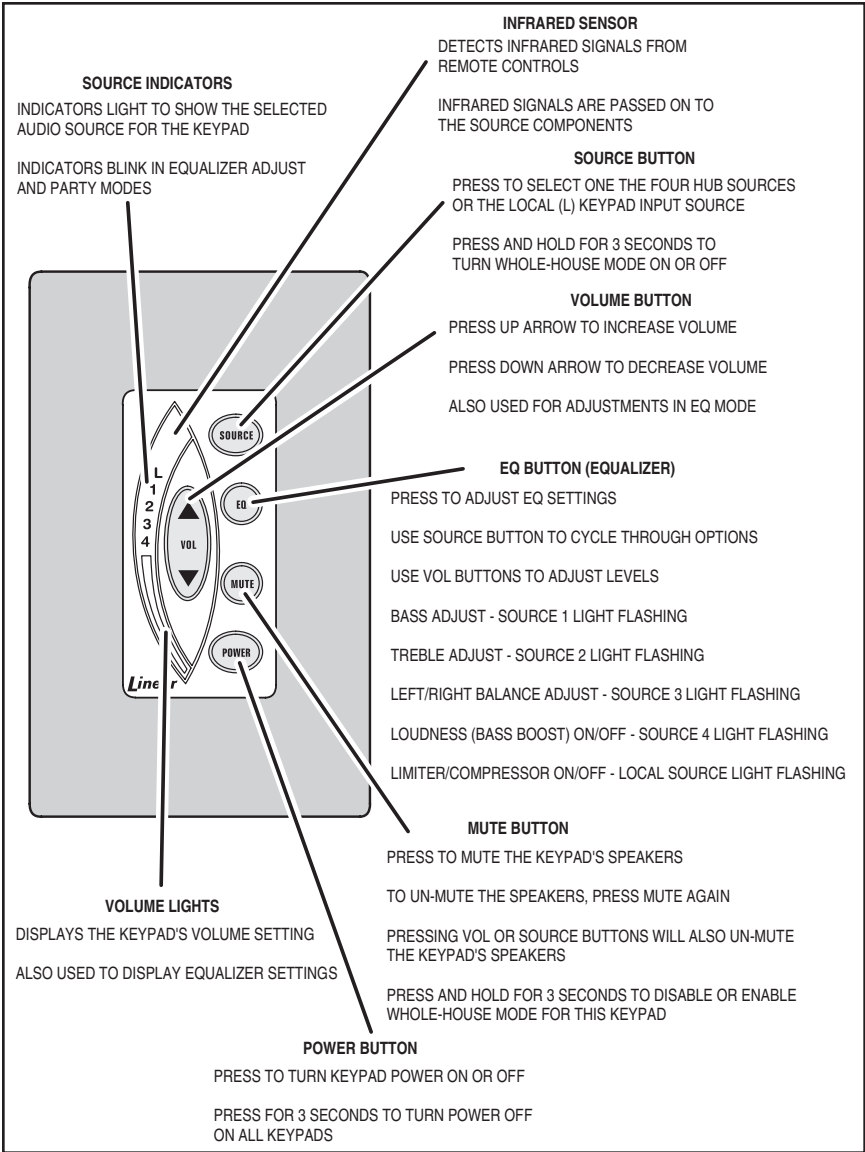


# Keypad Features

The keypads control the system's power and all its functions. The system can be controlled by any keypad in the installation.

The keypads have soft blue lighting that stays on for about 20 seconds after any key is pressed. As a power-saving feature, after 20 seconds the keypad lighting will slowly dim

The system and audio source components can be operated by pointing the appropriate IR remote control at the keypad.



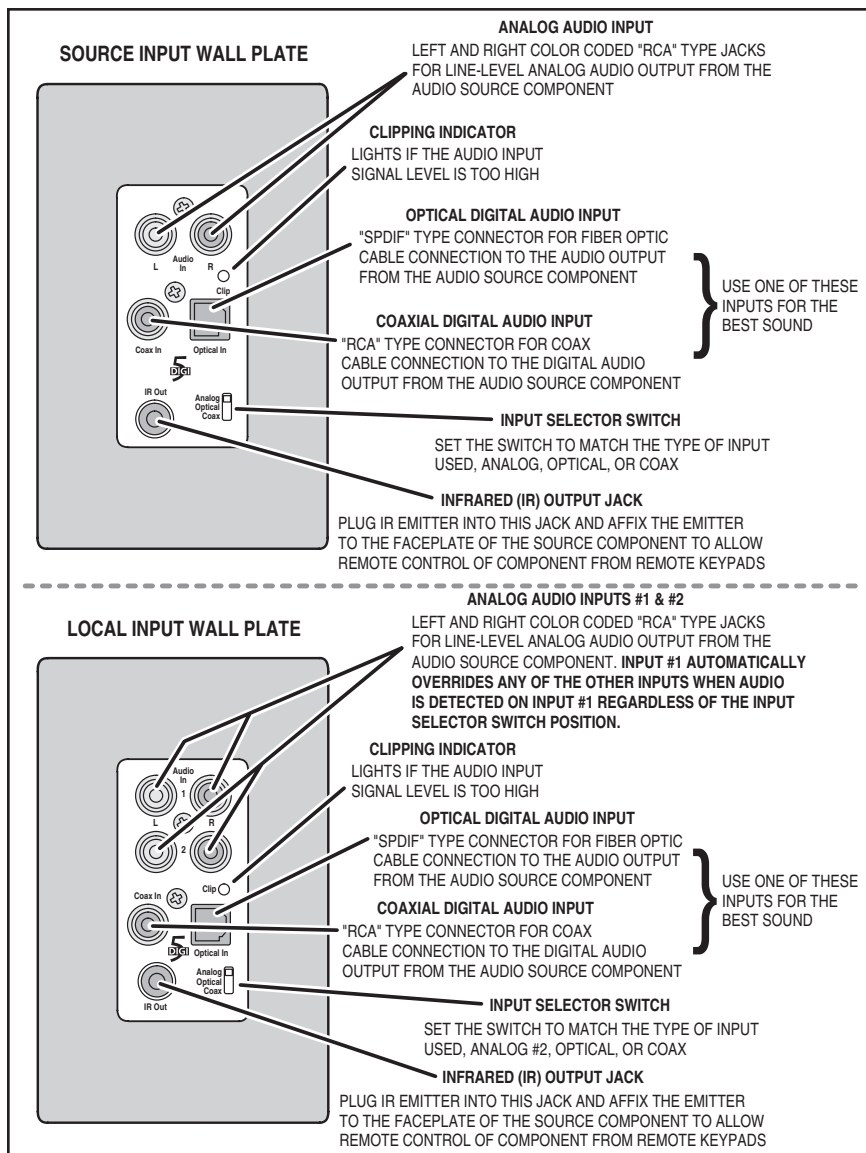
## Audio Source Wall Plate Features

The audio source wall plates provide a system connection point for your audio source components. Local audio source wall plates may also be installed in your system.

Line-level analog, coaxial digital, or an optical digital output from your audio source component can be used.

✓ **NOTE:** For the best quality sound, use your source component's digital output if it has one.

The wall plates have an IR output jack that an infrared emitter can connect to. The emitter attaches to the faceplate of the source component and allows IR remote control from keypad locations.



# System Operation

## Power On/Off

### Keypad Power On

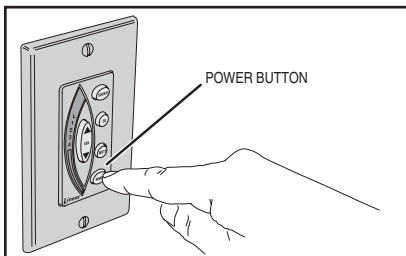
- Press the **POWER** button on the keypad. The keypad will light blue when the power is turned on.

### Keypad Power Off

- While the keypad is powered, press the **POWER** button on the keypad.

### Entire System Power Off

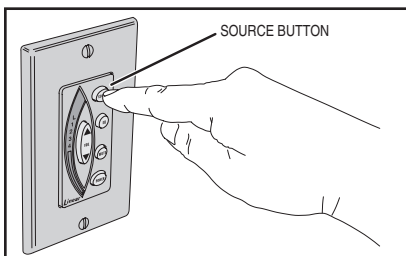
- Press and hold the **POWER** button for about three seconds. All keypads in the entire system will power off.



## Source Select

### Changing the Audio Source

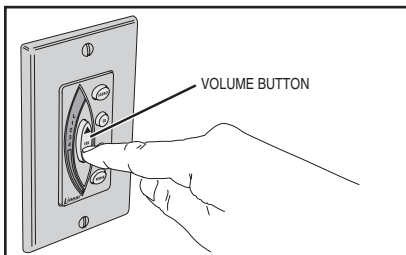
- Press the **SOURCE** button on the keypad to change the audio source.
- The source indicators will light to show which audio source is selected; **L** (Local), **1**, **2**, **3**, or **4**.



## Volume Control

### Turning the Volume Up or Down

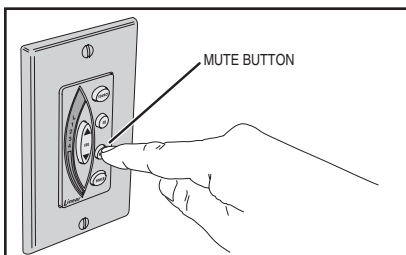
- Press **VOL ▲** to increase the keypad's volume.
- Press **VOL ▼** to decrease the keypad's volume.
- The volume indicators will show the set level. The more indicators lit, the louder the volume.



## Audio Mute

### Muting the Keypad's Sound

- While the audio is playing, press the **MUTE** button to silence the audio.
- The bottom volume indicator will blink while mute is active.
- Press the **MUTE** button again to return the keypad to its previous volume setting.
- Pressing the **VOL ▲** or **SOURCE** buttons will also return the keypad to its previous volume setting.
- Pressing **VOL ▼** will un-mute the audio and set the keypad to minimum volume level.

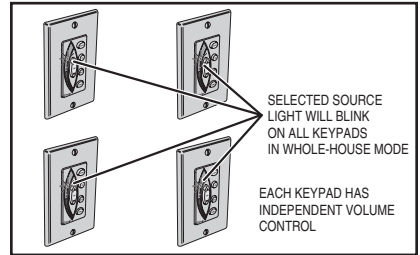
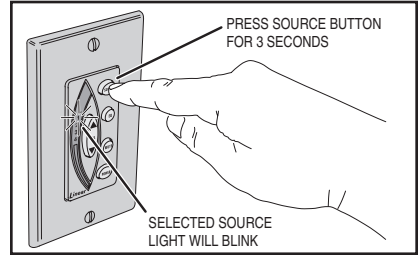




## Whole-house Mode

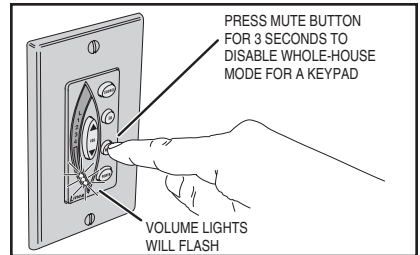
### Playing the Same Source at all Keypads

- Press the **SOURCE** button for about three seconds to enter or exit whole-house mode.
- The selected audio source indicator will blink on and the same audio will play at all keypads.
- If a keypad is set for do not disturb mode, it will not play the source (see below).
- The volume control is independent for each keypad.
- Pressing the **SOURCE** button on any keypad will change the audio source; **1, 2, 3, or 4** for all keypads that are in whole-house music mode.
- Audio from local audio wall plates (source **L**) cannot be the whole-house source.



### Do Not Disturb Mode

- Press a keypad's **MUTE** button for about three seconds to prevent the individual keypad from allowing whole-house mode.
- The keypad will flash to display that if whole-house mode is selected by another keypad, this keypad will not participate.
- To allow whole-house mode for the keypad, press the **MUTE** button again for about three seconds.



# System Operation

## Equalizer & Audio Dynamics

### Adjusting the Keypad's Sound

- Press the **EQ** button to enter equalizer adjustment mode. Press **EQ** again to exit.
- Equalizer adjustment mode automatically exits after 30 seconds of keypad inactivity.
- The source indicators will light up, then one will flash to indicate that the keypad is in equalizer adjustment mode.
- Use the **SOURCE** button to cycle through the five adjustment modes.

### Bass Adjust

- When source indicator **1** is flashing, the keypad is in bass adjust mode.
- The center volume indicator will light, showing a "flat" adjustment for the bass, no bass increase or decrease.
- Use the **VOL ▲** and **VOL ▼** buttons to adjust the bass level. Lit indicators above the center show more bass. Lit indicators below the center show less bass.

### Treble Adjust

- When source indicator **2** is flashing, the keypad is in treble adjust mode.
- The center volume indicator will light, showing a "flat" adjustment for the treble, no treble increase or decrease.
- Use the **VOL ▲** and **VOL ▼** buttons to adjust the treble level. Lit indicators above the center show more treble. Lit indicators below the center show less treble.

### Balance Adjust

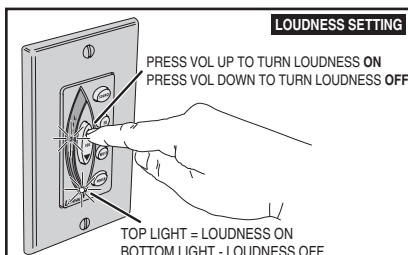
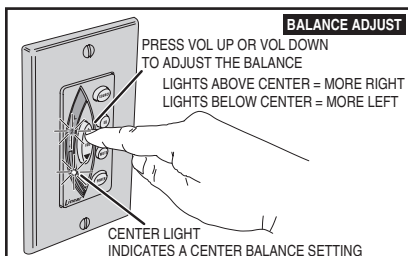
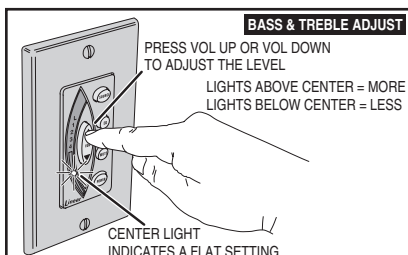
- When source indicator **3** is flashing, the keypad is in balance adjust mode.
- The center volume indicator will light, showing a "center" adjustment for the balance, no extra left or right.
- Use the **VOL ▲** and **VOL ▼** buttons to adjust the balance. Lit indicators above the center show more right balance. Lit indicators below the center show more left balance.

### Loudness On/Off

- When source indicator **4** is flashing, the keypad is in loudness setting mode.
- When the loudness setting is on, extra bass is added to improve the sound when listening at low volume levels.
- Use the **VOL ▲** button to turn this option on (the top volume indicator lights).
- Use the **VOL ▼** button to turn this option off (the bottom volume indicator lights).

### Limiters/Compressor On/Off

- When source indicator **L** is flashing, the keypad is in limiter/compressor mode.
- Loudness adds extra bass. Limiter/compressor automatically limits volume.
- Use the **VOL ▲** button to turn this option on (the top volume indicator lights).
- Use the **VOL ▼** button to turn this option off (the bottom volume indicator lights).



## Remote Controls

### Basic Remote

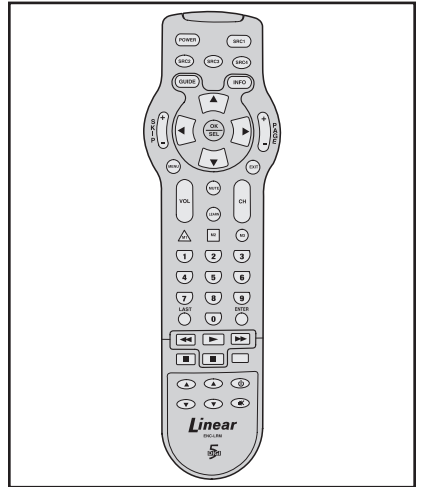
- The basic remote control can operate the system's source selection, volume, mute, and power.
- The basic remote control sends infrared (IR) signals to the keypad that is being controlled.
- **For the best operation, be sure to point the remote control directly at the keypad.**
- To change the keypad's source, press the **SRC ▲** or **SRC ▼** buttons.
- To change the keypad's volume, press the **VOL ▲** or **VOL ▼** buttons.
- To mute the keypad's sound, press the **MUTE** button.
- To control the keypad's power, press the **PWR** button.



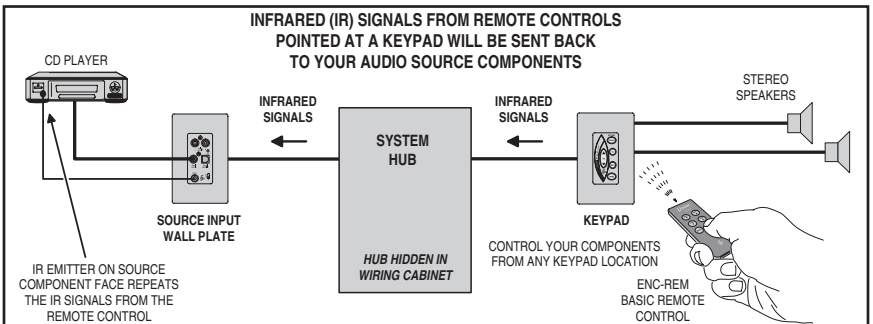
*Basic Remote Control*

### Learning Remote

- The learning remote control performs all the functions of the basic remote control, plus all the other functions that can be controlled by a keypad.
- Up to four source devices as well as your audio distribution system can be operated with the learning remote control.
- The learning remote control can "learn" IR commands from other IR remote controls and be programmed with up to three key macros.
- **For the best operation, be sure to point the remote control directly at the keypad.**
- Refer to the instruction sheet packed with the learning remote control for details on its operation.



*Learning Remote Control*



# Specifications

<b>Amplified Keypads</b>	
Continuous Average Output Power, 8 $\Omega$ (1 kHz sinewave, 2 channels driven 1% THD)	60 W (2 x 30 W)
Dynamic Range	96 db
<b>Source Inputs</b>	
Source Input Impedance	50 k $\Omega$
Source Input Overload	2.4 Vrms
Sampling Frequency	48 kHz
Audio Resolution	24 Bit Stereo
<b>Emitter Outputs (1 for each source input)</b>	
Output Drive Current	12 mA
Output Drive Voltage	12 VDC

<b>Power Supply</b>	
Input	120 VAC 60 Hz, 1.2 A Avg.
Output	26 VDC
Power Consumption Maximum	200 W
Power Consumption Standby	20 W
<b>Regulatory</b>	
USA	TUV
Canada	TUV
<b>Physical Dimensions (D x W x L)</b>	
ENC-PS	2.1" x 6.3" x 8.5"
ENC-HUB	1.9" x 6.3" x 6.8"
ENC-DRS	2.6" x 1.8" x 4.1"
ENC-SIWP	2.9" x 1.3" x 4.1"
ENC-LIWP	2.9" x 1.3" x 4.1"

## Limited Warranty

This Linear product is warranted against defects in material and workmanship for twenty four (24) months. **This warranty extends only to wholesale customers** who buy direct from Linear or through Linear's normal distribution channels. **Linear does not warrant this product to consumers.** Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until the warranty expires. **This Linear LLC Warranty is in lieu of all other warranties express or implied.**

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Service at 1-800-421-1587 for an RPA# and other important details.



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