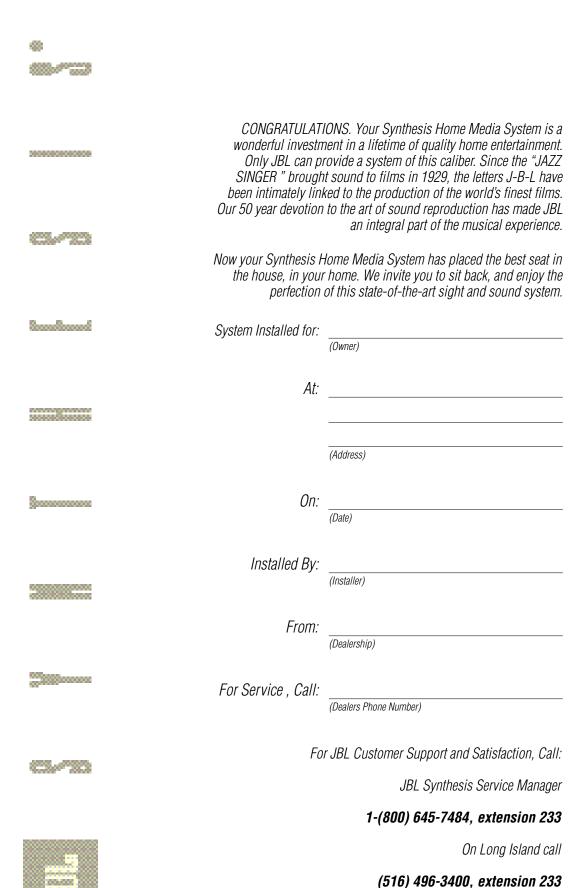


# SYNTHESIS OWNER'S MANUAL



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# **1.0** BASIC OPERATIONS

This Section focuses on the basic operations required to power up the system, to use it, to make simple everyday adjustments to both its Cinema and Music functions, and to turn it off. More advanced adjustments are covered in **Section 2: Advanced Operations**. Your certified JBL Installer will be glad to overview these materials with you.

# 1.1 Powering Up

The system can easily and quickly be turned on using the Remote Controller, pictured on this page. Simply push the button marked **POWER** and the Surround Processor, Amplifiers, Equalizers, Crossovers, and Speakers will all automatically power up, in sequence.

Next, turn on the Source Devices you want to use—VCR, Laser Disc player, CD, Television/Video, Audio Cassette Player.

You can turn these on in any order.

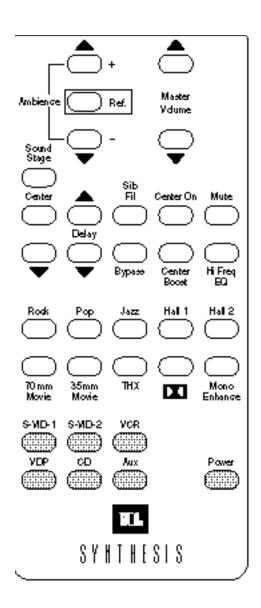
# 1.2 Basic Remote Control Operations

Your JBL Synthesis **Remote Control** unit handles virtually all of the functions of the system. Basic Operations include Selecting Source Devices, and Adjusting the Master Volume.

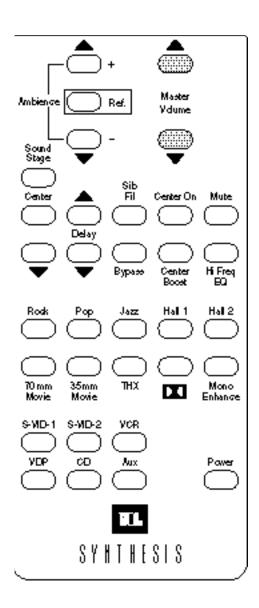
## 1.2.1 Selecting Source Devices

Examine the lower half of the Remote Controller until you have found six buttons with labels above each. These buttons allow you to directly access a particular source device and play it through the system. The buttons are labeled "S-VID-1", "S-VID-2, "VCR", "VDP", "CD", and "AUX". Your Installer, with your consultation, has determined the sources available for use in your system. Therefore certain buttons may be inoperative, corresponding to the sources not present.

To select a source device, simply press the corresponding button. The surround processor will engage that source.







## 1.2.2 Adjusting the Master Volume

The Master Volume buttons at the top right hand part of the Remote Controller are used to adjust the Output Levels of the system. Press the ▲ button to make things Louder, and the ▼ button to make things Softer. These do not adjust the Input Levels of the Source Devices. In fact, we recommend that you do not do so. They have been set and calibrated to mesh flawlessly with the system, and adjusting them directly — either through the dials on their front panels or via their own separate Source Remote Controllers, can throw the system out of balance.

**NOTE:** If, over time, you notice that one Source Device consistently sounds Too Loud or Too Soft, call your Certified Dealer. He or she will adjust the levels and re—set the new levels as your "Reference Levels" to which you can return if the system's sound goes awry.

# 1.3 Basic Cinema Operations

## 1.3.1 Adjusting the Cinema Volume

To adjust the Volume in Cinema Mode, make sure that the Video is powered up and that it has been selected as the source. Then simply adjust the volume ▲ or ▼ using the **MASTER VOLUME** buttons.

# 1.4 Basic Music Operations

## 1.4.1 Adjusting the Music Volume

To adjust the Volume in Music Mode, make sure that the appropriate Music Source Device is powered up and that it has been Selected as the Source. Then simply adjust the volume ▲ or ▼using the MASTER VOLUME buttons, as shown on the left.

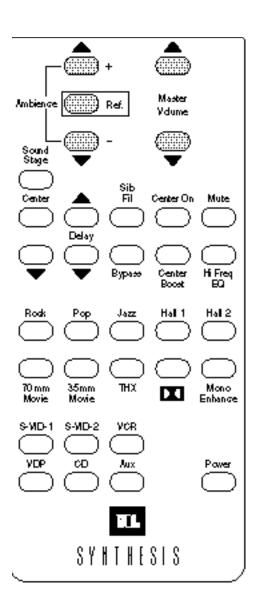
**Link Forward:** See Section 2: Advanced Operations, page 8.

## 1.4.2 Adjusting the Music Balance

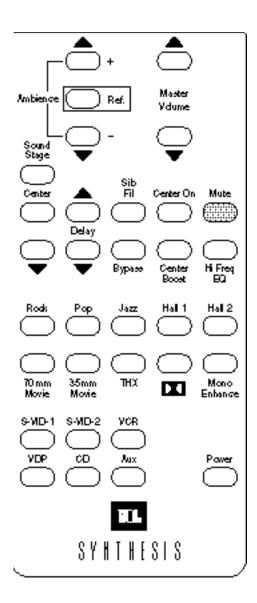
To adjust the Front/Back Balance in Music Mode, make sure that the appropriate Music Source Device is powered up and selected as the Source. To add more sound to the Rear Ambient Surround Speakers, press the ▲ button marked **Ambience** + on the remote controller. For less sound from the Ambient Surrounds, press the ▼ button. To restore the original pre—set balance, press the Center button, **REF**, which will set the system back to its Reference Levels.

Again, if your adjustments do not produce the desired effects, consult with **Section 2: Advanced Operations.** 

If you are not able to adjust the system to your liking using the procedures outlined therein, call your Synthesis Dealer.







# 1.5 Turning the System Off

There is no preferred order of components when turning the system off. However, there is one caution you should follow:

**NOTE:** Do not turn the system off while any Source Device is running and producing sound. Always make sure all Source Devices are in "Idle" before pressing the main POWER button.

Failure to do this can produce a noticeable "pop", and can, over time, damage your components. If you need to turn off the sound to the system suddenly, for example, to take a phone call or to reply to someone, press the **MUTE** button.

Notes			

# **2.0** ADVANCED OPERATIONS

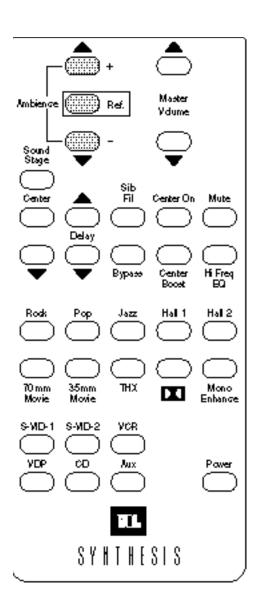
There are some Operations which go beyond the "basics" of the system and address its full array of functional capacities in detail. Before reading this Section, the Owner should have already read and mastered Section 1: Basic Operations. Your certified JBL Synthesis Installer will be glad to walk you through any or all of the information covered in this Section.

# 2.1 Advanced Cinema Operations

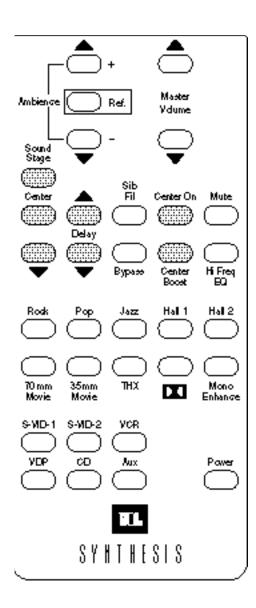
### 2.1.1 Ambience Level Adjustment

If you feel that the degree of Ambience — sound coming from the Ambient Surround Speakers — is too high or too low, you can adjust it by pressing the **AMBIENCE** + and **AMBIENCE** - buttons. Pressing the **AMBIENCE** + button increases the sound level of the Surrounds; pressing the **AMBIENCE** - button decreases the level. To reset the level to the "Reference Level" as preset by your JBL Synthesis Installer, press the **REF** button once.

Link Back: See Section 1, Page 4-7







### 2.1.2 Panorama Adjustment

Panorama refers to the degree of stereo separation generated by the Left and Right Main Speakers when listening to the simulated stereo of Mono recordings or movies. This can be adjusted by using the **SOUND STAGE, CENTER**, and ▼ buttons, located at the left side of the remote controller.

**Link Forward:** See Mono Enhancer, under 2.1.8, page 13.

Pressing the **SOUND STAGE** button increases the separation, spreading the sound further.

Pressing the **CENTER** button reestablishes the preset Reference Level.

Pressing the button with the ▼ button decreases the degree of Panorama or separation.

#### 2.1.3 Setting Time Delay

Time Delay refers to the delay in onset of the Ambient Speakers compared to the Main LCR Speakers. The preset level is 15 milliseconds.

For an added sense of spaciousness, the listener can press the **DELAY** ▲ button, which increases the delay from 15 to 30 mS in 5 mS steps. This can be effective with longer, narrower rooms, or with some sources which require a sound which is a bit more "echo—like" than standard. This enhanced setting applies more typically to Dolby Pro—Logic Surround and THX sources, but has additional applications in music, 35mm and 70mm modes.

Pressing the **DELAY** ▼ button reduces the Delay from 30 back to 15 mS.

## 2.1.4 Center Speaker Level

Some listeners like more or less sound coming out of the Center Main Speaker. This can depend both on the listener's ears and on the material generating the sound.

In THX or Dolby Pro-Logic Surround modes the Center Channel should be left on. To do this, simply press the **CENTER ON** button. For some sources, some listeners will want to enhance the level of sound coming from the Center Speaker. To do this, press the **CENTER BOOST** Button.



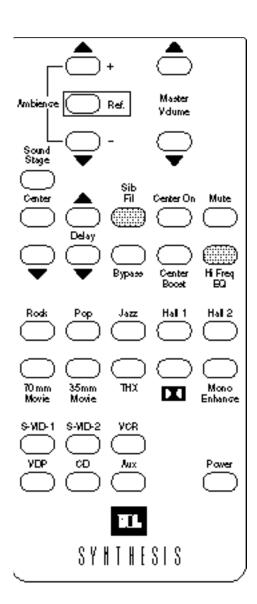


# 2.1.5 Woofer Equalization

While the JBL Synthesis System is calibrated to provide awesome amounts of clear, clean bass, some listeners might prefer a touch more bass for some sources. This cannot be adjusted from the Remote Controller, but must be done using the **BASS EQ** dial to the left of the **INPUT** control on the Surround Processor.

The preset bass is encoded at the off or zero position. To boost the bass level, slowly turn the dial clockwise a little at a time until it meets your auditory needs. A full 17 db of boost is available, so go slow to avoid shocking the equipment or your ears.





#### 2.1.6 Sibilant Filter

The Sibilant Filter reduces the potential "leakage" of cinema dialogue from the Center channel into the Ambient Surround Channels. Engage it if you are having the sensation that the actors are talking off to the side of you or behind you.

To activate this feature, press the button marked **SIB FIL**.

### 2.1.7 Hi Freq. EQ

Research conducted by LucasArts Entertainment showed that movie soundtracks which have been mixed for a large theater venue tend to sound overly bright when played back in a room under about 15,000 cubic feet. This is due to the natural tendency for high frequency sound to be attenuated as it travels through the air. Since the distances in a large theater venue are long compared to almost any home theater, this "HI FREQ EQ" can help restore the natural balance.

Not all sources will benefit from this additional frequency contouring. Therefore, we have provided a button on your remote control which will activate/deactivate the "HI FREQ EQ" to suit your preference.

#### 2.1.8 Cinema Modes

The JBL Synthesis System is pre—configured for a number of Cinema Modes, each of which has been calibrated to take advantage of the unique properties of each mode. Press the appropriate button for the type of Cinema Source material you are using. Virtually all tapes and disks are labeled for this.

#### • 70mm

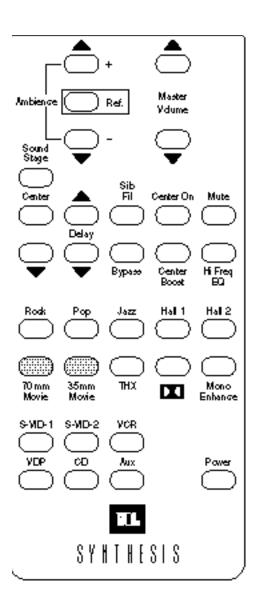
This mode increases Delay up to 50 mS. It also simulates a sense of Surround Sound by blending left and right front channel information and feeding it into the Ambient Surrounds.

To activate this mode, press the button marked **70mm MOVIE**.

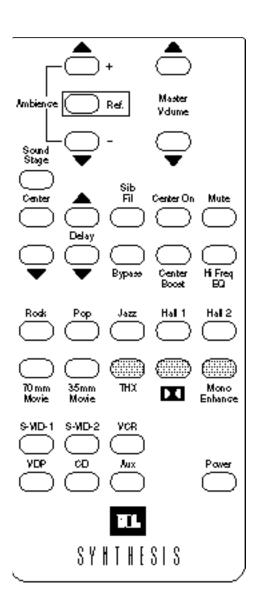
#### • 35mm

This uses a decoding matrix similar to Dolby Pro—Logic, but increases the frequency response on the Ambient channels and increases the Ambient Delay up to 50 mS.

To activate this mode, press the button marked **35 MM MOVIE**.







#### THX

This allows for the complete package of THX sound manipulations, and should be pressed when using any Source labeled as having THX—compatible sound or Dolby Stereo.

To activate this feature, press the button marked **THX**.

#### Dolby

This home version of the cinema Dolby Surround technology provides audio performance virtually identical to a Dolby theater experience. With this Mode engaged, the Surround Processor's sophisticated Dolby Pro-Logic circuitry reconfigures the steering logic constraints, and varies the Delay from 15 to 30 mS in increments of 5 mS.

To activate this feature, press the button marked with the familiar **Dolby logo**.

#### Mono Enhance

Of course, most people still occasionally like to listen to old Monaural tapes or records or watch old Mono movies. JBL Synthesis allows you to do this without sacrificing the cinema or sound—stage audio quality of the system. Mono Enhance was designed for these sources, and creates a spatial effect comparable to the sensation of stereo.

To activate this feature, press the button marked **MONO ENHANCE**.

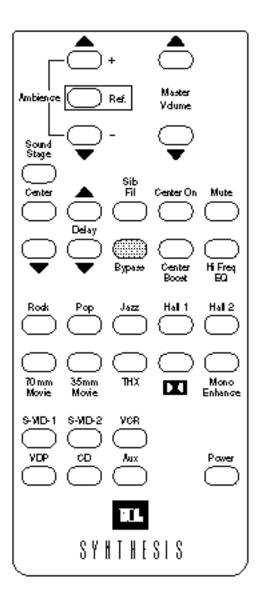
# 2.2 Advanced Music Operations

As we have discussed the Music System is virtually a "system-within-the-system", and can operate separately from the Cinema Mode. Within the Music System, there are a number of adjustments you can make directly from your Remote Controller.

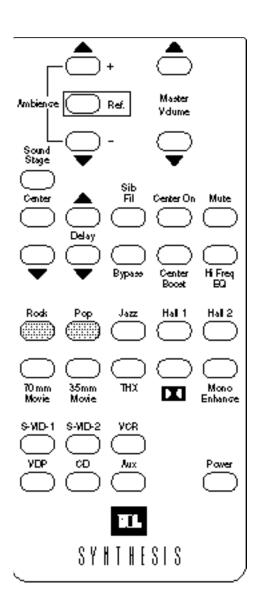
## 2.2.1 Switching to the Music System

Most listeners prefer to listen to Music in its classic "stereo" modality. This gives the perception that the listener is sitting in front of a bandstand, and that all of the sound is coming from the front of the room, where the band is visualized to be. To switch to this "pure stereo" mode, press the **BYPASS** button, which shuts off the Center Speaker and the Ambient Surrounds, thereby muting all of the Surround effects and engages the music speakers.

Of course, other listeners like the sensation of being "inside the music". With the Center Speaker engaged and the Ambients playing, it can feel as if you are in the middle of the orchestra. For this experience, do **not** press **BYPASS**.







#### 2.2.2 Music Modes

Of course, there is music and then there is music. The JBL Synthesis System allows you to configure it to play different types of music and to take advantage of their different characteristics.

#### Rock

The Rock Mode allows you to have the best of all possible worlds, giving you full stereo separation plus a high degree of ambience as well. This is true Stereo Surround like no other system can deliver — a feeling of converting your Media Room into one giant pair of headphones.

In **Rock** mode, the Panorama function is engaged, and you can adjust the Delay up to 80 mS to give more or less "depth" to the sound.

This mode also works well with most Electronic and New Age recordings as well.

To engage this mode, simply press the **ROCK** button.

#### Pop

The Pop mode yields a more "frontal" sound than does the **Rock** mode. In **Pop**, the Ambient Surrounds each carry a monophonic signal, giving the impression of a concert hall presentation. Panorama is engaged and Delay can be set anywhere up to 80 mS.

Pop mode works well for a wide variety of music, including Pop, Light Rock, Broadway show tunes, and some Rock as well.

To engage this mode, simply press the **POP** button.

#### Jazz

The operative word here is "live", as the Jazz mode makes most music sources sound engagingly present. Again, the music's perceived source is the front of the room, with a bit less exaggerated stereo separation, to make it sound as if a small combo is playing in your living room. The Ambient channel is in Mono, for spatiality only, and Panorama and Delay can also be adjusted for more or less of a sense of space, both front—to—back and side—to—side.

This mode works well not just for Jazz recordings, but also for "New Jazz", "Fusion Jazz", and Blues.

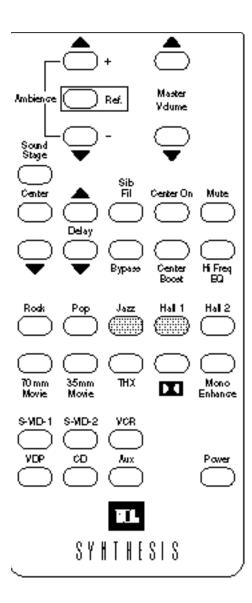
To engage this mode, simply press the **JAZZ** button.

#### Hall 1

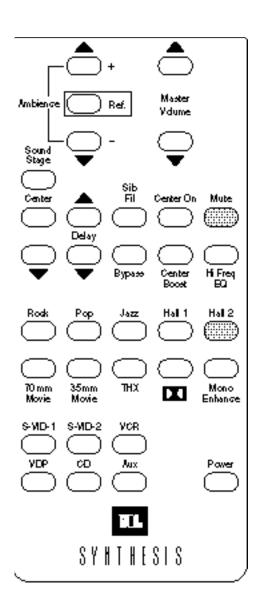
This mode works best for small ensemble sounds, where you desire the most "pure" unprocessed sound possible. The Front channels are completely unprocessed, and a slight amount of stereo surround is extracted from the recording and sent through the Ambient Speakers. Delay is not an option in this mode. Instead, a special equalization curve which emulates the natural decay of live sound over distance is applied to the Ambient Channels. The listener has the sensation of being very close to a natural live performance.

This mode works well for Chamber Music and virtually all Small—Ensemble Acoustic sources.

To engage this mode, simply press the **HALL 1** button.







#### Hall 2

This mode has been designed for works on a broader acoustic canvas, like orchestral and operatic works. Like Hall 1, there is no processing of the front channels, and the Center Speaker is disengaged (although you can re—engage it using the **CENTER** button if you desire). The Ambient mix gives the sensation not of being right in front of the ensemble but rather of being in the "middle of the hall" with a larger ensemble. Delay can be set anywhere up to 80 mS.

To engage this mode, simply press the **HALL 2** button.

# 2.3 Advanced Remote Control Operations

#### 2.3.1 Mute

The Mute feature does exactly what it says it does — cuts Audio output. This allows you to answer the phone or have a conversation without shutting down the entire system.

Mute all Audio, whether in Cinema or Music Mode, by pressing the **MUTE** button.

## 2.3.2 Front Panel Controls **Notes** Input Level Knob Caution: This knob should not be used for volume control. It should be approximately 12 o'clock or straight up. The only time it should be turned down is if you notice the LED Level Light going into the red. The unit is then being overloaded and at any output level distortion is being produced. Bass EQ Knob While the JBL Synthesis System is calibrated to provide awesome amounts of clear, clean bass, some listeners might prefer a touch more bass for some sources. This cannot be adjusted from the Remote Controller, but must be done using the BASS EQ dial to the left of the **INPUT** control on the Surround Processor. The preset bass is encoded at the off or zero position. To boost the bass level, slowly turn the dial clockwise a little at a time until it meets your auditory needs. A full 17 db of boost is available, so go slow to avoid shocking the equipment or your ears.

2.3.3

The balance of these switches perform the identical function as the remote so please refer to Remote Instructions for their functionality.

# **3.0** Service



Once the system is in place, it should need little or no attention. The components are of the highest quality, and many are built to withstand the rigors of professional use. This Section outlines service policies and warranties.

# 3.1 General Service Policy

*The* JBL Synthesis System *is backed by our exclusive* "48—hour (no-down-time) Service Policy".\*

Any time within a component's warranty period that you report trouble to your certified JBL Synthesis Dealer, he will determine the nature of the problem and contact JBL within 24 hours.

If a damaged component is within the first 30 days of its warranty period JBL will send your JBL Synthesis Dealer a replacement unit, to be installed in your system, within the specified 24 hour period, after JBL has been contacted.

If more than 30 days of your component's warranty period has lapsed, and the damaged component is still covered under warranty, JBL will provide your JBL Synthesis Dealer with a loaner unit within the same 24 hour period to be installed in your system, and your unit will be sent to JBL for repair.

This policy applies to systems purchased in the USA only. Outside the USA please contact the local distributor for warranty service.

\*Weekends and holidays are excluded from this policy.

### 3.2 Audio Service

#### Electrical components

All Electronic components are fully warranted for two years, including parts and labor. Any problems occurring within the two year warranty period will be covered by the JBL Synthesis exclusive "48-hour nodown-time" Service Policy.

#### Loudspeakers

All Loudspeakers are fully warranted for five years, including parts and labor. Any problems occurring within the five year warranty period will be covered by the JBL Synthesis exclusive "48-hour no-down-time" Service Policy.

The vast majority of service calls for Audio will simply require resetting the system. Call your certified JBL Synthesis Dealer.

An Installer will make an appointment to reset the system. On arrival, he or she will refer to the Templates in the last section of your Manual, and will reset any components which require it.

Call your certified JBL Synthesis Dealer for a replacement unit, or to initiate the use of a loaner. If for any reason you are dissatisfied or need additional assistance, call:

JBL Synthesis Client Service Manager

(800) 645-7484, extension 233 On Long Island call (516) 496-3400, extension 233

# **4.0** CALIBRATION TEMPLATES



4.1 Synthesis One

DATE: .		 	
OWNER:		 	
ΙΝΙςΤΔΙΙΙ	FR		



# 4.2 Synthesis Two

OWNER:

Notes		



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