

Leslie[®]

STUDIO 12



Owners Manual
Studio 12

IMPORTANT SAFETY INSTRUCTIONS

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.

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 wider blade or 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.

WARNING: To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.

Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

PORTABLE CART WARNING



Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. 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.

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Do not operate this Leslie in an environment where temperatures are below 32° F. If Leslie has been subjected to extreme low temperatures, product must be placed in warmer environment unpowered for at least 30 minutes before turning on the AC power to the Leslie.



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates there are important operating and maintenance instructions in the literature accompanying this unit.

Welcome

We greatly appreciate your purchase of a genuine LESLIE speaker system. If this is your first purchase of a LESLIE product, we would like to welcome you into the LESLIE family. If you are a repeat customer, thank you for your continued confidence in our LESLIE products.

Your LESLIE speaker system was engineered and manufactured to the most stringent quality standards, reproducing the full-spectrum sound of musical instruments and housed in an acoustically engineered, road-worthy cabinet, to assure your LESLIE will sound and look great for many years to come. LESLIE speakers are the result of many years of research and dedication to the art of sound reproduction and is carefully designed and tested to provide long and dependable service

Many features have been included in this speaker to insure the finest sound from your Hammond Organ, keyboard, guitar, acoustic instrument, or microphone. Please take a moment to carefully read this manual and familiarize yourself with many of the fine features found in your new genuine Leslie speaker system. Take pride in being the owner of the most innovative sound system in the industry today.

Product Overview

Your LESLIE STUDIO 12 is the first-ever ultra-compact dual-rotor LESLIE speaker. The same principles and patented technologies that have been perfected in our legendary “Full-Size” LESLIES have been employed in the LESLIE STUDIO 12.

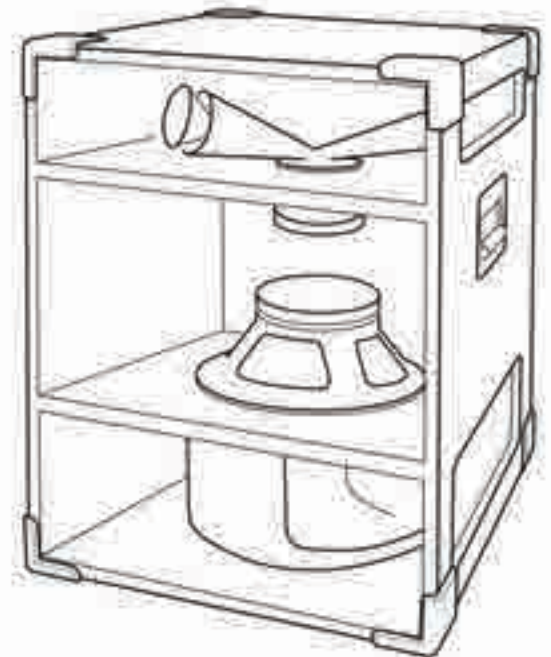
As in “Full-Size” LESLIES, the STUDIO 12 contains two rotors to produce the world-renowned "sound-in-motion" effect. The upper frequencies are reproduced by a specially designed high-compression driver coupled to the patented dual rotary horn. Reproducing the lower frequencies is a 12” Woofer that fires into our patented high-density drum. Two quiet motors spin the rotor and drum at speeds specified by you on the control panel.

The included FS-10TL footswitch controls the fast and slow speeds, and also turns the motion "off", if desired. When “Off” (or “Brake”) is selected, the Horn and Rotor stop in a position directing all sound from the front of the cabinet, allowing the STUDIO 12 to behave like a non-rotary amp, making proper microphone coverage a snap. The optional V-20RT “Speed Pedal” allows continuous control of the speed, with ability to hold a custom speed at any point.

The STUDIO 12 comes equipped with a 100-watt 2-channel (dual input high/low gain) amplifier. A real-tube preamp allows you to gently warm your tone, or push it all the way to crunch overdrive. A switch on the panel chooses the clean or overdrive channel. The optional FS-1TL footswitch can be used to remotely change the channels. There are independent volume controls for each channel. The overdrive channel also adds a gain control and “contour” control, which permits you to tailor the midrange to your exact choice. A three-band equalizer serves both channels.

Important Note!

The LESLIE STUDIO 12 is designed to enhance a wide variety of instruments, from Guitar to Vocals; and, yes, Hammond Organ and other keyboards. In order to do this, the sonic range of the STUDIO 12 is wider than you might be accustomed to. The adjustments of the control panel become essential very quickly. In the instance of Hammond Organ, you may find a “usual” amp setting to have a disproportionate amount of “highs”. Conversely, the setting you like for Hammond Organ may sound muffled or dull for a guitar. As you set up your STUDIO 12, spend sometime to “zero in” on your favorite setting for Gain and EQ, and make a note of these settings.



STUDIO 12 Specifications

Featuring Exclusive Pedal Speed Control Circuitry (Patent Pending)

Channel Input	Features low and high gain input jacks. <i>Low for Hammond Organs and Keyboards, High for Guitar</i>
Variable Speed (Horn & Bass Rotor)	Slow/fast speeds can be individually adjusted. Horn and bass rotor will automatically stop in the forward position when the stop mode is selected. This maximizes the sound towards the audience.
Amplifier	Vacuum tube preamp with 100-Watt Peak solid-state power amplifier.
Speakers	12" Woofer speaker made with all original materials and a high frequency horn driver.
Control Inputs	Channel Select foot switch, speed select foot switch (slow, fast, stop), variable speed control pedal (V-20RT)
Controls	Clean Volume, Ch Select, Overdrive: Gain, Volume, Contour, Equalizer: Treble, Mid, Bass
Cabinet	Rugged-built, black-painted cabinet, constructed of 3/4" MDF, with protective corners and two recessed handles.
Power Supply	120V AC, 60Hz
Dimensions	29 1/4"(H) x 20 1/2"(D) x 26 3/4"(W)
Weight	85 lbs
Included Accessories	FS-10TL Dual foot switches, (16' cord included), enables rotor control speed (slow, fast, stop).
Optional Accessories	V-20RT Speed Control Pedal FS-1TL single foot switch, used to remotely control channel select.

STUDIO 12 Leslie Setup Procedure

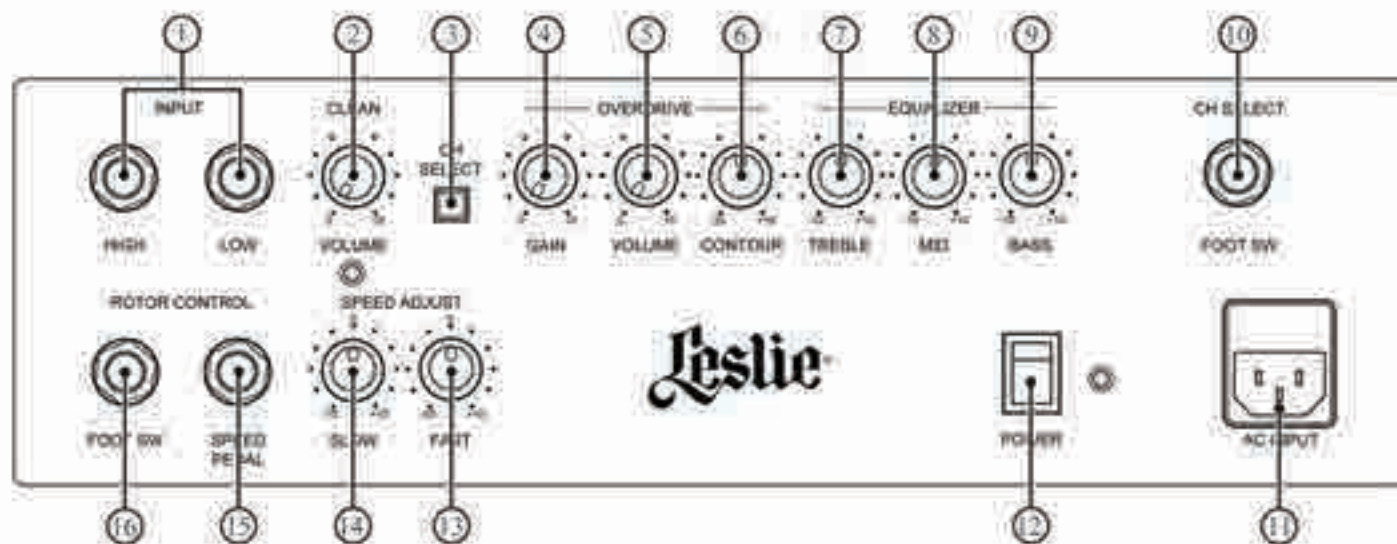
1. Place your LESLIE speaker in a place that produces the best sound reproduction.
2. Insert the AC power cord into the AC receptacle located on the rear panel of your Leslie. Plug the other end of the cord into a 120V AC/60hz outlet.
3. Insert the 1/4" male plug of the FS-10TL dual footswitch into the "Rotor Control-Foot Switch" jack located on the rear panel of the Leslie.
4. If available, insert the 1/4" male plug of the optional V-20RT Speed Pedal into the "Rotor Control Speed Pedal" jack located on the rear panel of the Leslie.
5. If available, insert the 1/4" male plug of the optional FS-1TL "Channel Footswitch" into the "Ch Select Foot Switch" jack located on the rear panel of the Leslie.
6. Connect your instrument with a 1/4" shielded cable to either the High or Low input jack. (Use the **Low** input jack for Hammond Organ, or other Keyboard instrument. Use the **High** input jack for Guitar, or any instrument with a magnetic pickup.)
7. Make sure both volume controls are set fully counter-clockwise to the zero position.
8. Set the Overdrive Gain control to the minimum position (full counter-clockwise).
9. Set the Contour, Treble, Mid, and Bass controls to the "12:00" position.
10. Set the Rotor Speed Controls to the detent positions (at "12:00").
11. Make sure that the Channel select switch is "out" (indicator light is on).
12. Place the power switch on your LESLIE to the "on" position and slowly raise the volume controls. Experiment with the other controls.

CAUTION-The Leslie speaker volume control of the "clean" channel should be set to prevent distortion or overdriving the speakers. Excessive input may cause serious damage to the Leslie and void your warranty. Use the "Overdrive" channel to obtain distortion-tone.

Try the different speeds with different EQ settings. Depress the channel select switch to access the overdrive channel. Rotate the "contour" control to find your favorite sound. Please note that when the channel select switch located on the rear panel of the Leslie is depressed (Overdrive channel is ON), the FS-1TL Channel select footswitch will not function.

IMPORTANT NOTE: If you intend to "mic" the STUDIO 12, do so **ONLY** from the **FRONT** of the cabinet. (The controls are on the "back" of the cabinet). Do **NOT** mic from the sides. This is because the sound is directed from the front only of the cabinet when the rotary speed is set to the "off" position.

STUDIO 12 Controls and Their Functions



1. **High and Low Instrument Input Jacks** - Use **Low** for Hammond Organs, keyboards, or with an active pickup system. Use **High** for Guitar or any instrument with a magnetic pickup.
2. **Clean Volume** - Volume control for clean channel
3. **Channel Select** - Depress this switch to select Overdrive Channel. Indicator light will illuminate when Clean Channel is selected.
4. **Overdrive Gain** - Controls amount of Gain Boost for Overdrive channel
5. **Overdrive Volume** - Volume control for overdrive channel
6. **Contour** - Sweepable Midrange attenuation for Overdrive Channel
7. **Treble** - Cut or Boost Upper frequencies (Global)
8. **Mid** - Cut or Boost Midrange frequencies (Global)
9. **Bass** - Cut or Boost Bass frequencies (Global)
10. **Channel Select Footswitch Jack** - Insert plug of optional footswitch here to select channels via foot switch.
11. **AC Input** - Connect provided grounded AC cable here.
12. **Power Switch** - Turns unit on and off.
13. **Rotor Speed Fast** - Sets maximum fast rotor speed (both rotors)
14. **Rotor Speed Slow** - Sets minimum slow rotor speed (both rotors)
15. **Rotor Control Speed Pedal Jack** - Insert plug of optional V-20RT Speed Pedal here.
16. **Rotor Control Foot Switch Jack** - Insert plug of provided FS-10TL Dual Foot Switch here.

STUDIO 12 “Front-Stop” Feature

The “Front-Stop” Feature

There will be times that you may not wish to use the “Sound-In-Motion” features of the STUDIO 12 and have the unit work as a “regular” amp. In all previous LESLIES, when the rotor’s speed control was placed in the “off” position (called “brake” in Leslie-speak), the rotors would stop in a random position. On the STUDIO 12, when you choose “Off” on the FS-10TL dual footswitch, the rotors will come to rest in such a fashion that all of the sound will be directed out of the FRONT of the STUDIO 12. This is very important to remember if you use microphones to re-amplify the STUDIO 12 through a PA or other sound reinforcement system.

NOTE!

When stopped, the top rotor will not face directly forward. Although the top rotor is not facing directly forward, the sound is being directed directly out of the center of the top front opening. The lower drum scoop will face directly forward. If using microphones to re-amplify your LESLIE STUDIO 12, always position the microphones in the center of the grill cloths on the FRONT of your LESLIE.

STUDIO 12 FAQs

USE OF THE OPTIONAL V-20RT SPEED PEDAL

On the classic keyboard LESLIES, you had three choices of rotor speed - Fast, Slow, and Off. On the LESLIE STUDIO 12, adding the optional V-20RT pedal gives you continuous control of the rotor speed. Stopping the travel of the pedal at any point "freezes" the speed at that point. One of the favorite effects made possible by the LESLIE speaker is "Ramping", referring to the "speeding up" or "slowing down" of the rotors as you play. With the V-20RT you control the speed of the rotors. This is great for building emotion into your playing.

Caution: The LESLIE STUDIO 12 has been designed to work **only** with the optional V-20RT Speed Pedal. Serious damage to your Leslie may occur if another type of pedal is plugged into the "Rotor Control Speed Pedal" jack. There are MIDI volume/control/expression pedals that appear similar to the V20-RT, but they will not work with your STUDIO 12.

F.A.Q.'s

Can I use other manufacturer's foot pedals for the "speed pedal"?

No. The STUDIO 12's Leslie motor control circuits have been designed only to work with our V20-RT speed pedal. Serious damage to your Leslie can occur if you use another manufacturer's pedal .

Do the motors in my STUDIO 12 need "oil" like a traditional Leslie?

No. The long life, quiet motors supplied with the STUDIO 12 Leslie are maintenance-free and do not require oiling.

Do I need to remove the panels on the back to get a better sound?

No. Remember that when the rotors are on "brake"(or off) the sound comes out of the front. Don't ever remove any of the panels - To do so will invalidate your warranty and could create a hazardous situation. Mic it from the front!

Is the STUDIO 12 a "Real" Leslie?

As real as it gets! The STUDIO 12 is based on all the original principles and patents invented by Mr. Donald Leslie in 1941. Think of your STUDIO 12 as a "mini-me" of the big classic Leslies. Of course, you have the advantage of all of the modern world's updates like the silent motors in your G37 (Don would have loved them).

STUDIO 12 Accessories and Care Instructions

INCLUDED:

- 1: AC Power Cord
- 2: Dual Footswitch (FS-10TL)



1: AC Cord



2: FS-10TL

OPTIONAL:

- 3: Channel Footswitch (FS-1TL)
- 4: Speed Control Pedal (V20RT)



3: FS-1TL



4: V20RT

CARE OF YOUR STUDIO 12

Your LESLIE speaker has been carefully engineered for durability and maximum service. Except for occasional replacement of maintenance items like belts, your LESLIE speaker will require little or no attention.

CAUTION

As with any electrical or electronic equipment, care should be exercised to prevent fire and shock hazard. The following information is provided to give guidance in the safe use and care of your LESLIE speaker.

ENVIRONMENT

To prevent an electrical shock hazard, do not expose your LESLIE to wet floors, stage decks, liquid spills and splashes, or rain. And remember, this is a precision musical instrument, not an end table. Find somewhere else to park your drink.

ENCLOSURE

The removal of any part of the enclosure may result in exposure to electrical shock. Servicing should not be attempted by the user or by your roadies. There are no user-serviceable parts. Refer all servicing to factory-trained technicians.

POWER

Operate this speaker only at the AC voltage and frequency that was set at the factory.

MOVING

Carry and load your STUDIO 12 always in an upright position.



SERVICE

Hammond maintains a policy of continuously improving and upgrading its instruments and therefore reserves the right to change specifications without notice. Although every attempt has been made to insure the accuracy of the descriptive contents of this manual, total accuracy cannot be guaranteed.

Should the owner require further assistance, inquiries should first be made to you Authorized Hammond Dealer. If you still need further assistance, contact Hammond at the following address.

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