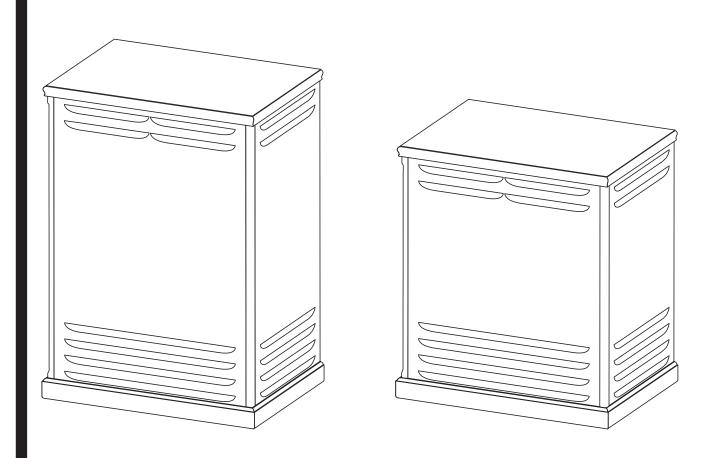


Innovative Sound Systems



Leslie Heritage Series

Model 122H/142H

Owner's Manual

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.

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.



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.

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

ATTENTION: Pour réduire les risques de choc électrique ou d'incendie, ne pas exposer cet appareil à la pluie ou à l'humidité.

- -THIS APPARATUS MUST BE EARTHED.
- -The socket-outlet shall be installed near the apparatus and shall be easily accessible.



注意:感電の恐れありキャビネットをあけるな ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR WARNING:

Leslie 122H/142H Owner's Manual

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

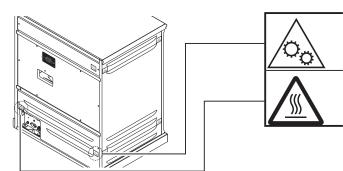


The lightning flash with arrowhead symbol within an equilateral triangle, indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



The exclamation point within equilateral triangle, indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

WARNING: Do not insert your fingers through the gaps. There are rotating parts and hot parts inside.



This mark on the unit warns that there are rotating parts inside this unit and there is a risk of getting your fingers caught.

This mark on the unit indicates that there are hot parts inside this unit.

For the USA



NOTE: This equipment has been tested and found to comply with the limits for a Class B digital unit, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For CANADA

This class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

For EU countries



In case in the future your instrument gets too old to play/use or malfunctions beyond repair, please observe the instructions of this mark, or, if any question, be sure to contact your dealer or your nearest town or municipal office for its proper disposal.

For UNITED KINGDOM

FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY

This appliance is supplied with a molded 3-pin mains plug for your safety and convenience.

The plug contains a 13 amp fuse.

Should the fuse need to be replaced, please ensure that the replacement fuse has a rating of 13 amps and that it is approved by ASTA or BSI to BSI1362.

Check for the ASTA mark or the BSI

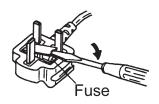


mark on the body of the fuse.

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If the fuse cover is lost, the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be obtained from your local Hammond Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME, THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT-OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

To replace the fuse, open the fuse compartment with a screwdriver and replace the fuse and fuse cover.



for your purchase of the Leslie® Speaker System. Your new Leslie Speaker culminates many years of research and dedication to the art of sound reproduction. This Leslie Speaker has been designed to provide the utmost in musical enchantment, plus dependable service.

The Leslie Speaker system sets revolutionary new standards of organ speaker performance, achieving heights of musical excellence never before considered possible. Not just another speaker - it marks a major breakthrough in organ sound, perhaps the most significant step forward since the introduction of the electronic organ.

Many features have been included in the speaker to insure the finest organ sound possible. Please take a moment to read this manual, then turn on your new Leslie Speaker and enjoy your organ playing to the fullest.

MAIN FEATURES

- The Leslie Heritage Series (models 122H & 142H) is a meticulous recreation of the original Leslie 122/142 tone cabinets. Not only speakers and amplifiers, but all the other elements related to the sound such as materials and shapes of cabinets and rotors are recreated.
- These models include both 122 and 147 response curves, thereby enabling you to have two different sound profiles in the same cabinet.
- The vacuum tube (valve) preamplifier and power amplifier give you the same classic warm sound as in the original speaker cabinets.
- These cabinets feature three input connectors an 11-pin plug for connecting Hammond Organs such as XK-3, XK-3c, XK-5, etc., a LINE INPUT jack for connecting instruments with standard 1/4" LINE OUT audio connections, and a 6-PIN DIN INPUT socket for connecting an organ equipped with a 5-pin or 6-pin tone cabinet connector (B-3, C-3, RT-3, A-100 and D-100).
- The brushless DC Servo motors are not affected by power frequency variations or voltage changes, making them more stable under all performing conditions. These motors give you the ability to adjust the Slow and Fast speeds and Rise and Fall Times of the rotors.

SPECIFICATIONS

TYPE

1-channel (Rotary Channel Only) Mechanical Rotors

POWER OUTPUT

40 Wrms

SPEAKERS

Horn

High-compression Driver

Low

15" (38cm) Woofer

Vacuum Tubes

Preamp

12AU7 x 1

Power amp

12AU7 x 1, 6550 x 2

CONTROL

Volume

Master Volume

Switch

POWER Switch, FOOT SW TYPE, 11-PIN POWER REMOTE, 6-PIN DIN CONTROL TYPE

MOTOR

Brushless DC Servo Motor x 2

ROTOR

Horn Rotor, Wooden Low Rotor

ROTOR ADJUST

Horn

RISE TIME, FALL TIME, SLOW SPEED, FAST SPEED

Low

RISE TIME, FALL TIME, SLOW SPEED, FAST SPEED

LED

SLOW, STOP, FAST

CONNECTORS

11-PIN INPUT,

6-PIN DIN INPUT,

Line INPUT $\frac{1}{4}$," imped. $10k\Omega$ sensitivity 100mV (-18dBu),

FOOT SW (SLOW/FAST/STOP)

AC Inlet

POWER CONSUMPTION

160 W

DIMENSION

122H

W 74.2 X D 52.4 X H 104.3 cm W 29.2 X D 20.6 X H 41 inches

142H

W 74.2 X D 52.4 X H 84.6 cm W 29.2 X D 20.6 X H 33 inches

WEIGHT

122H

57.7 kg / 127.2 lbs

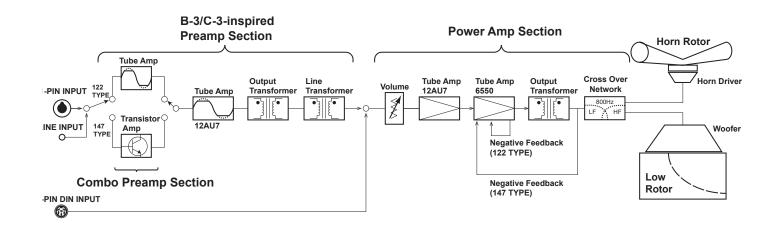
142H

54 kg / 119.1 lbs

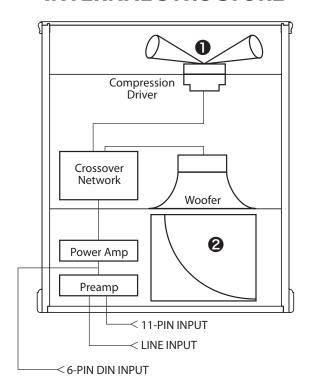
OPTIONAL

11-pin Leslie Cable LC11-7M 6-pin to 6-pin DIN Adapter Cable LCA-66 Foot switch FS-10TL/FS-9H

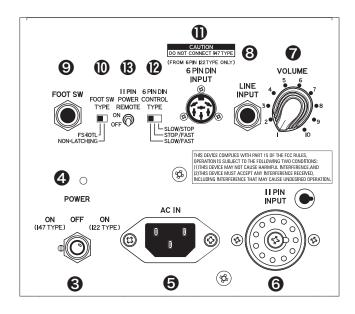
BLOCK DIAGRAM



INTERNAL STRUCTURE



MAIN CONTROL PANEL



Horn Rotor

Reproduces the treble (above 800 Hz) frequencies.

2 Low Rotor

Reproduces the bass (below 800 Hz) frequencies.

POWER Switch

Turns the power to the speaker "ON" or "OFF."

Turn the switch to the <u>right</u> to enable "122-type" amp characteristics. Turn the switch to the <u>left</u> to reproduce "147-type" sound.

Power Indicator

Indicates the power status.

Bright: Power is "ON."

<u>Dim:</u> Standby mode for 11-pin Remote (p.13).

Off: Power is "OFF."

6 AC Receptacle

Use to connect the AC power cord (included).

③ 11-PIN INPUT socket

Use to connect an organ equipped with an 11-pin Leslie interface.

VOLUME knob

Controls the total volume of the cabinet.

② LINE IN jack

Use to connect an instrument with LINE OUT jacks using standard 1/4" plugs.

9 FOOT SW jack

Allows you to control the Leslie rotors using the FS-10TL or FS-9H Foot Switch. When using the FS-9H, the rotors will switch between SLOW and FAST each time the Foot Switch is pressed. If the Foot Switch is pressed and held for 1.5 seconds or longer, the Rotors will STOP.

NOTE: Use this jack only if you are connected to the cabinet via the LINE INPUT jack. Do not connect a Foot Switch to this jack if you are connected to this cabinet via the 11-pin INPUT or 5-to 6-pin Leslie socket.

The following (optional) foot switches can be used:

FS-10TL: Leslie foot switch.

FS-9H: non-latching, normally open type.

Other switches of the same type as FS-9H

(i.e. non-latching, normally open switches).

(1) FOOT SW TYPE selector

Selects the type of Foot Switch to be used.

FS-10TL: Use Leslie FS-10TL.

NON-LATCHING: Use Hammond FS-9H or similar "non-latching/normally open" switch.

① 6-PIN DIN INPUT socket

Connects an organ equipped with a 5- or 6-pin Leslie adapter kit using a 6-pin to 6-pin DIN Adapter Cable LCA-66 (optional).

A CAUTION

The Leslie Heritage Series cabinets accept 122-type output only. DO NOT attempt to connect another adapter kit interface (such as 147, 251, etc.) to this cabinet or severe damage may result. If you are not sure which type of adapter kit is installed in your organ, contact a service technician.

A CAUTION

This socket includes 91V DC output. To prevent damage to this cabinet and your devices, do not connect any other audio cables or devices other than the LCA-66 cable to this jack.

19 6-PIN DIN CONTROL TYPE selector

Selects the function of the Leslie speed switch when connected using a 5- or 6-pin Leslie output socket.

NOTE: "CHORALE" is SLOW speed and " <code>TREMOLO</code>" is FAST speed.



Position	CHORALE	TREMOLO
SLOW/STOP	SLOW	STOP
STOP/FAST	STOP	FAST
SLOW/FAST	SLOW	FAST

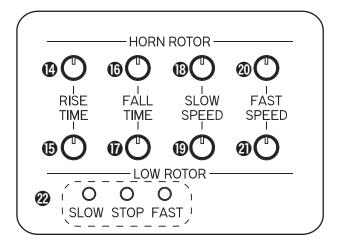
Table 1: Functions selected by 6-PIN DIN CONTROL TYPE selector

(B) 11-PIN POWER REMOTE switch

Allows the cabinet to be turned "ON" from the power switch of an organ connected via the 11-pin interface (p.13).

NOTE: If your instrument is not connected via the 11-pin interface, set this switch to the "OFF" position. If it is set to "ON," the cabinet will not turn"ON."

ROTOR CONTROL PANEL

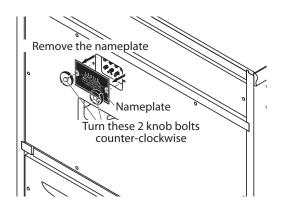


ACCESSORIES



The Rotor Control Panel is located on the back panel of the cabinet. These controls allow you to customize the SLOW and FAST speeds of both the Horn and Low Rotors as well as the Rise (rate from STOP/SLOW to FAST) and Fall (rate from FAST to SLOW/STOP) times of both rotors.

These controls are normally covered by the metal nameplate; however, they can be accessed by removing the plate as shown in the figure below.



NOTE: Because the nameplate contains model information for the cabinet, be sure to keep it and the knob bolts in a secure place if you remove them.

⚠/ ⑤ RISE TIME knob- HORN and LOW Rotors

These allow you to adjust the time for the rotors to reach the FAST speed from the SLOW speed or STOP. Turning them clockwise will increase the time.

10/10 FALL TIME knob- HORN and LOW Rotors

These allow you to adjust the time for the rotors to reach the SLOW speed or STOP from the FAST speed. Turning them clockwise will increase the time.

®/® SLOW SPEED knob-HORN and LOW Rotors

These allow you to adjust the rotor speed of the SLOW mode.

②/② FAST SPEED knob-HORN and LOW Rotors

These allow you to adjust the rotor speed of the FAST mode.

NOTE: The default values for each setting are shown below. These are the values when each control is in the center position.

	RISE TIME	FALL TIME	SLOW SPEED	FAST SPEED
HORN	1.8[s]	2.4[s]	44[rpm]	402[rpm]
ROTOR			_	_
LOW	7[s]	5.5[s]	42[rpm]	372[rpm]
ROTOR			_	_

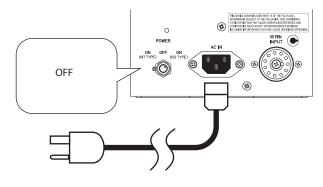
ROTOR MODE Indicator

These LEDs indicate the current state of the rotors.

NOTE: The three LEDs will all flash according to the speed of the Low rotor for a few seconds after the power to the cabinet is turned "ON."

AC Power Cord

Connect the female end of the AC Power Cord into the receptacle on the cabinet marked, "AC IN."



TO AC OUTLET

Steps:

- ① Make sure the power to the cabinet is "OFF."
- 2 Locate the AC Power Cord that came with the cabinet.
- 3 Connect the female end of the AC Power Cord into the receptacle on the cabinet marked, "AC IN."
- **4** Connect the 3-pronged Power Cord into a grounded AC power outlet.

A CAUTION

Do not place this unit in direct sunlight, near heat sources, or in a location subject to excessive heat or cold.

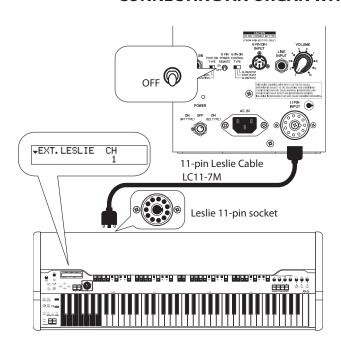
MAKING THE CONNECTIONS

Connect cables and accessories and operate the switches on this unit as shown below and on the next page.

NOTE: Make sure the power to both the instrument and the cabinet is "OFF" before making any of the following connections.

NOTE: Do not connect any cables or devices other than those shown in each of the following connections. This is to insure the rotor mode will switch correctly and to prevent damage to either the organ or the speaker cabinet.

CONNECTING AN ORGAN WITH AN 11-PIN LESLIE INTERFACE



Applicable HAMMOND Models:

Single-channel models: B-3/C-3 mk2, New B-3/C-3 etc.

Models with channel switching: SK PRO, SKX PRO, SKX, XK-5/-3/-3C, A-162, A-405, XB-3/-3M etc.

NOTE: This cabinet does not support 3-channel models, such as XE-1, XT-100, XH-200, etc.

Steps:

① Connect the organ to the cabinet as shown on the left.

Cable used:

11-pin Leslie Cable LC11-7M (optional)

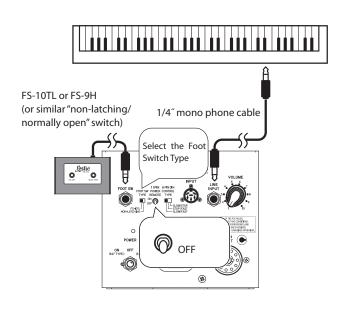
NOTE: You can also connect the organ to two cabinets using the 11pin Leslie "Y" Cable LC11Y-7M (optional).

NOTE: When using this connection, do not connect any cables or devices to the FOOT SW jack, LINE INPUT jack or the 6-PIN DIN INPUT socket. This is to insure the rotor modes will switch correctly and to prevent damage.

- 2 Turn the [11-PIN POWER REMOTE] switch to "OFF."
- ③ If the organ has a provision for setting the number of channels of an external Leslie, set the [EXT.LESLIE CH] of the connected organ at 1.

NOTE: Please refer to the Owner's Manual of the organ for instructions on how to set the number of channels.

CONNECTING AN INSTRUMENT WITH A 1/4" AUDIO INTERFACE



Steps:

① Connect the cabinet and the instrument as shown on the left.

Cable used:

- 1/4" mono phone cable (optional)
- 2 Turn the [11-PIN POWER REMOTE] switch to "OFF."
- ③ Connect a Foot Switch (FS-10TL or FS-9H) to the [FOOT SW] jack.

NOTE: When using this connection, do not connect any cables or devices to the 11-PIN INPUT socket or the 6-PIN DIN INPUT socket. This is to insure the rotor modes will switch correctly and to prevent damage.

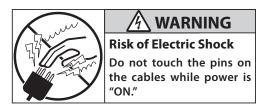
Select the Foot Switch Type using the [FOOT SW TYPE] selector. Position it to the left [FS-10TL] when using an FS-10TL and to the right [NON-LATCHING] when using a Hammond FS-9H or similar "non-latching/normally open" switch

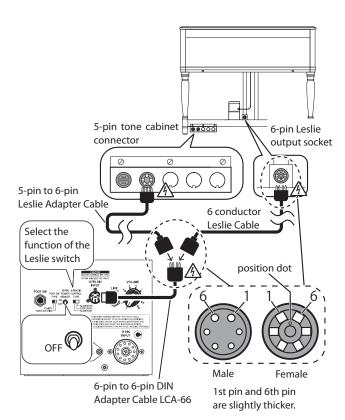
NOTE: If your instrument has a built-in digital Leslie, turn it "OFF" when using this connection.

Leslie 122H/142H Owner's Manual

CONNECTING AN ORGAN WITH A 5- or 6-PIN LESLIE INTERFACE

NOTE: Before attempting to connect the Heritage Series cabinets to a vintage organ, the organ needs to have a Leslie speed switch attached to the front rail.





⚠ MARNING: Risk of Electric Shock!

Make sure the power to both the organ and the cabinet is "OFF" before performing any of the steps shown below. Do not touch the pins of the cables while power is "ON," or electric shock may result due to voltage emitted from the organ and the cabinet.

Steps:

① Connect this unit and the organ as shown in the figure on the left.

Cables used:

- 6-pin to 6-pin DIN Adapter Cable LCA-66 (optional)
- 5-pin to 6-pin Leslie Adapter Cable/
 6 conductor Leslie Cable

NOTE: When using this connection, do not connect any cables or devices to the FOOT SWITCH jack, LINE INPUT jack or the 11-PIN INPUT socket. This is to insure the rotor modes will switch correctly and to prevent damage.

A CAUTION

The Leslie Heritage Series cabinets accept 122-type output only. DO NOT attempt to connect another adapter kit interface (such as 147, 251, etc.) to this cabinet or severe damage may result. If you are not sure which type of adapter kit is installed in your organ, contact a service technician.

A CAUTION

Be sure to notice the orientation of the connectors (shown at left).

② Make sure the [11-PIN POWER REMOTE] switch is "OFF."

NOTE: The 11-PIN POWER REMOTE function is <u>not</u> supported when using the 6-PIN DIN INPUT interface (p.13).

3 Select the function of the Leslie speed switch using the [6-PIN DIN CONTROL TYPE] selector (p.7).

A CAUTION

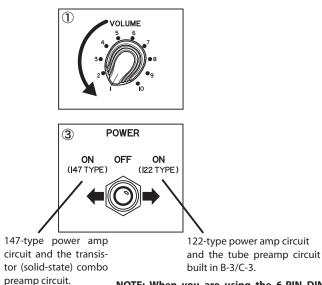
The 6-PIN DIN INPUT socket includes 91V DC output. To prevent damage to this cabinet and your devices, do not connect any other audio cables or devices other than the LCA-66 cable to this jack.

Column: Difference between 122 and 147-type Leslie Input

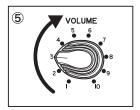
Pin Number	Leslie 122	Leslie 147	
1st	signal input (balanced)	signal GND	
2nd	AC signal/DC GND	speed control AC voltage	
3rd	AC power input	AC power input	
4th	AC power input	AC power input	
5th	DC 265V output (B+)	speed control AC voltage	
6th	signal input (balanced)	signal input (unbalanced)	

Table: function of Leslie 6-pin input socket

Leslie Speaker models 122 and 147 both use a 6-pin interface; however, the pin configurations are different for the two cabinets (see the table on the left).



NOTE: When you are using the 6-PIN DIN INPUT socket, the audio signal goes directly to the power amp circuit but does not go through the preamp circuit.



After making the connections described on the previous pages, follow the procedures on this page to turn the power to the cabinet "ON." Please follow these procedures to prevent malfunction or damage.

Steps:

- ① Turn the [VOLUME] knob to its minimum position as shown on the left.
- **②** Turn the power to the connected instrument ON.
- 3 Turn the [POWER] Switch to "ON (122 TYPE)" or "ON (147 TYPE)."
 - The rotors will automatically start rotating at FAST mode.
 - After 6 seconds, the rotors will switch from FAST mode to the current speed according to the position of the Leslie switches on the organ or the Foot Switch setting.

NOTE: If you are switching from one Type to another, turn the Power Switch "OFF," and wait about 2 seconds before turning it to the other position.

- ① Turn the volume of the <u>connected instrument</u> to its <u>maximum</u> position.
- ⑤ Adjust the [VOLUME] knob of the cabinet while playing the instrument to determine the appropriate setting.

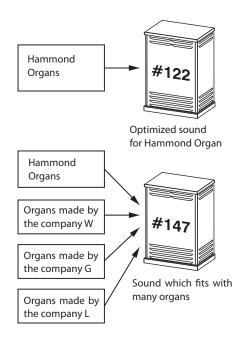
NOTE: The vacuum tubes utilized in this cabinet require approximately 10 to 20 seconds to warm up after the power is turned "ON." After the tubes have warmed up the cabinet will sound.

ACAUTION

The [VOLUME] knob should be set to a moderate amount in order to prevent distortion or overdriving the speakers (see the illustration on the left). Excessive volume may cause serious damage to the unit.

© Verify that the Rotor speeds will change in response to either the Leslie switches on the connected instrument or a Foot Switch.

Column: Difference in sound between Leslie 122 and 147



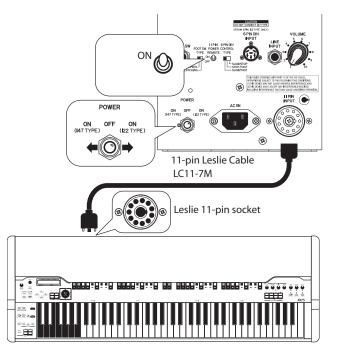
Leslie Speaker models 122 and 147 share the same cabinetry but contain different electronics and are designed for different applications. The 122 was originally designed specifically for Hammond Organs requiring a separate tone cabinet (B-3, C-3, RT-3, etc.). The 147 was designed for single channel organs having the sound-producing circuitry within the console (A-100 as well as organs of other brands) and has different input circuitry relating to rotor speed switching (see the table at the bottom of page 11).

Although the 122 and 147 cabinets both utilize a 40-watt tube amplifier, the sound is slightly different on the two cabinets. The 147 is slightly brighter due to a higher treble roll-off frequency.

tips Leslie 122/147 and 142/145

The Leslie 122 and 147 both utilized cabinets with a height of 41 inches. However, both models were also offered in slightly smaller cabinets (33 inches in height) for special applications. The model 142 is the smaller version of the 122 and the 145 is the smaller version of the 147.

11-PIN POWER REMOTE FUNCTION (only for organs with a Leslie 11-pin socket)



If you are connected to the cabinet using the 11-pin interface, you can use the 11-PIN POWER REMOTE function to turn the power to the cabinet "ON" using the power switch on the organ.

NOTE: This function is <u>only</u> available when connecting the cabinet using the 11-pin interface.

Steps:

- ① Make sure the power to both the organ and the cabinet are "OFF."
- ② Connect the cabinet to the organ using the 11-pin interface (optional Leslie Cable LC11-7M).
- 3 Turn the [11-PIN POWER REMOTE] switch to "ON."
- ① Turn the [POWER] Switch on the cabinet to "ON (122 TYPE)" or "ON (147 TYPE)."
 - The Power Indicator LED will light "Dim," indicating the cabinet is in STANDBY mode.
- ⑤ Turn the power to the organ "ON."
 - The cabinet and the organ will both turn "ON" and the Power Indicator LED will light "Bright."

NOTE: If you turn the power to the connected organ "OFF," the cabinet will revert to STANDBY mode and the Power Indicator LED will light "Dim."

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 your Authorized Hammond Dealer. If you still need further assistance, contact Hammond at the following addresses:

In the United States Contact:

HAMMOND SUZUKI USA, Inc.

219 West Wrightwood Ave. Elmhurst, Illinois 60126 UNITED STATES

Tel: (630) 543-0277 Fax: (630) 543-0279

Web site: www.hammondorganco.com E-mail: info@hammondorganco.com

Product Registration
http://hammondorganco.com/support/
online-product-registration/



In European countries contact:

HAMMOND SUZUKI EUROPE B. V.

IR. D. S. Tuynmanweg 4a 4131 PN Vianen THE NETHERLANDS Tel: (+31) 347-370 594

Web site: www.hammond.eu E-mail: info@hammond.eu

Product Registration http://www.hammond.eu/support/ online-product-registration/



For other countries:

SUZUKI CORPORATION

2-25-7, Ryoke, Chuo-ku, Hamamatsu, Shizuoka Pref. 430-0852 JAPAN

Tel: (+81) 53-460-3781 Fax: (+81) 53-460-3783 E-mail: suzukicorp@suzuki-music.co.jp

Technical materials are available and can be obtained by mailing a request to the appropriate address listed above marked ATTENTION: SERVICE DEPARTMENT.

Manufacturer:

SUZUKI MUSICAL INSTRUMENT MFG. Co., Ltd.

2-25-7, Ryoke, Chuo-ku, Hamamatsu, Shizuoka Pref. 430-0852 JAPAN