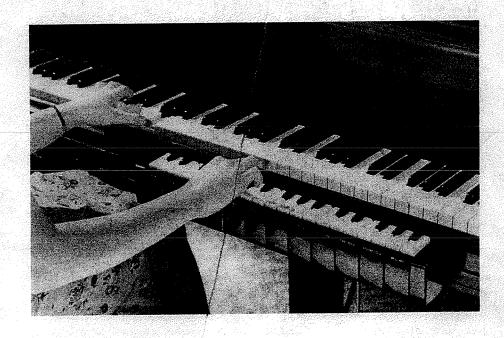
To SOLOVOX: OWNERS

(MODEL L SOLOVOX)



THIS BOOKLET contains information that will enable you to quickly become familiar with the Solovox and its many beautiful tones. It also contains suggested combinations and short excerpts from well-known melodies, which are but a start in the vast field of new musical effects made possible to you through the Solovox.

HAMMOND INSTRUMENT COMPANY

What the SOLOVOX is

The Solovox, as its name implies, is a solo instrument. It is designed to be attached to your piano, and to be played with the piano as accompaniment. The beautiful sustained tones of the Solovox blend in thrilling fashion with the percussion tones of your piano, greatly enriching even the simplest music. The Solovox produces its tones electrically, entirely independent of the piano, and does not affect the tone of the piano or its ordinary use in any way.

The Solovox consists of two units, one a keyboard unit which is readily attached to any style of piano, in accordance with instructions given on page 13. Since the keyboard unit attaches under the front panel of the piano, it does not mark nor mar the piano in any way, and can be removed in a moment if desired. The second unit of the Solovox is the tone cabinet, which when used with a spinet or upright piano usually stands on the floor at one end of the piano. When used with a grand piano, the tone cabinet is usually suspended in a horizontal position underneath the piano in such a way that it is practically invisible.

To start the Solovox, first be sure that it is plugged into an alternating current circuit of the voltage and frequency indicated on the tone cabinet. (Do not plug the Solovox into any other type of current without first consulting your dealer or writing to us for information.) Under the keyboard, to the left, you will find a movable lever—simply pull this lever forward to a center position. This lever not only starts the Solovox but also controls the volume of the music. It will take about 30 seconds for the Solovox to warm up. Later, when you have finished playing the Solovox, turn it off by pushing this volume control lever back toward the left into its original position.

To play the Solovox, it is necessary that one or more of the REGISTER CONTROLS (the first four tablets, marked in succession BASS, TENOR, CONTRALTO, SOPRANO) as well as one or more of the TONE CONTROLS (marked DEEP TONE, FULL TONE, FIRST VOICE, SECOND VOICE, BRILLIANT) be pushed in at the top. You will find a description of the qualities of these controls a little further on, also an explanation of the rest of the tablets, which are marked MUTE, FAST ATTACK, VIBRATO OFF.

To Choose Combinations, the player will find it convenient to first put all controls in their

off positions by wiping the thumb along the bottom of the tablets. Then select the controls you desire to use, either by ear or by using some of the combinations suggested on pages 6 and 7 or those suggested on the specimen music on pages 8 to 12. Depress the desired controls by pushing each in at the top, making certain that you have fully depressed each. A useful combination for the beginner is to have all controls off except "CONTRALTO" and "DEEP TONE," so you might use this for the moment.

The Volume Control is the knee-operated lever with which you started the Solovox. In playing the Solovox it is not necessary to strike the keys forcibly in order to increase the volume of sound. Merely depress the playing keys and move the volume control to the right the desired amount. When the volume control points straight out from the Solovox the volume will be at its softest position; moving the lever to the right with your knee will increase the tonal volume. As you release pressure on the lever, it returns toward its central, or softest, position. (If you desire to change the minimum or maximum volume of sound, see page 15 for further instructions.)

Method of Playing. You play only one note at a time on the Solovox, as you do on any solo instrument. No matter how many keys you depress, only one key will sound at any one time. Thus the Solovox does not play chords, but you can play octave groups by combining the tablets, as explained later under "The Register Controls." Since each note will sound only as long as you hold the key, it is desirable to use what is known as a slightly "detached" style of playing; that is, hold the note while you want it to sound, then release the key before depressing the next key.

For Playing Duets, the Solovox has been arranged so that the keyboard can be moved a full octave to the right. This is done by loosening the two thumb screws that hold the keyboard to the attachment bar, and pushing the Solovox to the right, then tightening the thumb screws again. When the keyboard is in this position, the duetist's hands will not interfere with the accompanist's playing. In this fashion, one person can play the solo instrument part of the music and the pianist can play the accompaniment exactly as he would for orchestra. The Solovox musician plays the small cued notes (usually the first violin part) written above the accompaniment score, using either a Solovox combination for violin effect or any other that sounds well. In popular music, the Solovox can carry the voice part. The piano accompaniment is usually quite simple, so that this class of music forms a vast and practically endless literature of all types of music upon which the duet musicians may draw. No special arranging is necessary. Merely ask for the "Piano Accompaniment Part for Orchestra" at any music store.

page four

DESCRIPTION OF CONTROLS

The Register Controls—Bass, Tenor, Contralto, Soprano—control the pitch register in which the instrument sounds. When the keyboard is located so that its lowest C key lies opposite middle C on the piano, the pitches sounded will be those of the corresponding piano keys when the "CONTRALTO" control (the one with the dot over the wording) is pushed in at the top under the wording on the name plate. When "SOPRANO" is used, the tones will sound one octave above the corresponding piano keys. "TENOR" causes them to sound one octave, and "BASS" two octaves, below their corresponding piano keys. The musician may play with several of these tablets pushed in simultaneously to produce a chorus of tones in octave relations similar to the effect produced by organ couplers.

The Mute Control stresses the odd harmonics instead of a combination of odd and even harmonics. When the Mute Control is off, the Solovox produces effects of orchestral strings and brasses, while depressing the Mute Control gives tones corresponding to the orchestral clarinets, flutes and woodwinds.

The Vibrato Control Is Normally On (pushed in at the bottom) to impart a smooth, rich, string-like, tonal warmth. For most purposes the player will want the Vibrato on, and only for special effects will he desire to take it off. Qualities resembling the horn, oboe, church organ and flute will sound best with the Vibrato off, whereas qualities like violin and cello sound best with it on.

The Fast Attack Control regulates the promptness of tonal attack and is particularly useful when playing fast moving melodies.

The Deep Tone Control produces the rich, deep tone quality most frequently desired from the instrument.

The Full Tone Control results in a bright quality which may often be used to advantage alone or with the DEEP TONE control in many combinations.

The First and Second Voices function as musical resonators, and serve to emphasize various groups of overtones. The quality of the FIRST VOICE is of medium pitch, and that of the SECOND VOICE a high nasal-like quality. These controls are admirably suited to produce beautiful solo voices such as horn qualities.

The Brilliant Tone Control, as its name implies, produces a brilliant, piercing quality.

SOME SOLOVOX COMBINATIONS (For Model L Solovox)

Orchestral Strings 1. VIOLIN I 6. VIOLONCELLO I		Orchestral Brass	
		10. TRUMPET	13. TRUMPET
1. VIOLIN I	Tenor	Contralto	Tenor
Soprano	Full Tone	Vibrato Off	Vibrato Off
Deep Tone	run ione	Fast Attack	Deep Tone
Brilliant	7. VIOLONCELLO II	Second Voice	Second Voice
2. VIOLIN II	Tenor	Second Voice	
Soprano	Deep Tone	11. CORNET I	A CONTROL WITTE
Brilliant	Full Tone	Tenor	14. TRUMPET WITH VIBRATO
3. VIOLIN III	run ione	Vibrato Off	Tenor
Contralto	8. DOUBLE BASS I	Deep Tone	Deep Tone
Deep Tone	Bass	Second Voice	Second Voice
Brilliant	Full Tone		Second voice
4. VIOLA I		12. CORNET II	
Contralto	9. DOUBLE BASS II	Contralto	15. TUBA
Full Tone	Bass	Vibrato Off	Bass
	Deep Tone	Deep Tone	Vibrato Off
5. VIOLA II	Full Tone	Second Voice	Deep Tone
Contralto			
Deep Tone			
Full Tone	Onehastral Wood	Winds and Horns	
			30. ENGLISH HORN
16. ALTO CLARINET	21. BASS CLARINET I WITH VIBRATO	26. OBOE I Contralto	Tenor
Tenor	Bass	Vibrato Off	Vibrato Off
Vibrato Off			Second Voice
Mute	Mute	Second Voice	Brilliant
Full Tone	Deep Tone	Brilliant	A CONTRACTOR OF THE SECOND STATE OF THE SECOND
17. ALTO CLARINET	First Voice	27. OBOE II	31. PICCOLO
WITH VIBRATO	22. BASS CLARINET II	Contralto	Soprano, Mute
Tenor	Bass	Vibrato Off	Vibrato Off
Mute	Vibrato Off	Brilliant	Fast Attack
Full Tone	Mute	28. BASSOON	Deep Tone
18. SOPRANO CLARINET	First Voice	Bass	Full Tone
Contralto	23. BASS CLARINET II	Vibrato Off	32. MUTED HORN
Vibrato Off	WITH VIBRATO	First Voice	Tenor
Mute	Bass	Brilliant	Vibrato Off
Full Tone	Mute	29. OBOE HORN	First Voice
	First Voice	Contralto	33. MUTED HORN WITH
19. SOPRANO CLARINET WITH VIBRATO	24. FLUTE I	Vibrato Off	VIBRATO
Contralto	Contralto	First Voice	Tenor
Mute	Vibrato Off	Brilliant	First Voice
Full Tone	Mute		al Combinations
	Deep Tone	34. TENOR SAXOPHON	
20. BASS CLARINET I	-	Tenor	SAXOPHONE
Bass	25. FLUTE II	Deep Tone	Soprano
Vibrato Off	Soprano C#	35. ALTO SAXOPHONE	Deep Tone
Mute	Vibrato Off	Contralto	
Deep Tone	Mute		
First Voice	Deep Tone	Deep Tone	

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36a. BARITONE	37. FRENCH HORN Tenor	Multi-Octave and
SAXOPHONE Bass	Vibrato Off	Other Interesting Combinations
Tenor	First Voice	
Mute	38. WALD HORN	55. Bass 62. Bass 69. Bass
Deep Tone	Tenor	
36b. BASS SAXOPHON		그 그는 지구주를 즐겁지다.
Bass	Deep Tone	- 1987年 1987年 - 19874年 - 19874 - 19874 - 19874 - 19874 - 19874 - 19874 - 19874 - 19874 - 19874 - 19874 - 19874 -
Vibrato Off	39. BAG PIPE	Second Voice First Voice Soprano Second Voice
Deep Tone	Tenor	Second voice
Brilliant	Contralto	56. Bass 63. Bass
	Vibrato Off	Contralto Contralto 70. Tenor
	Second Voice	Deep Tone Mute Mute
	Brilliant	First Voice Second Voice Deep Tone
•		
Theatre Organ	n Combinations	57. Bass 64. Bass 71. Contralto
40. Bass	46. Bass	Tenor Contralto Mute
Tenor	Contralto	Deep Tone Mute Deep Tone
Deep Tone	Soprano	First Voice Second Voice
41. Bass	Deep Tone	Brilliant Brilliant 72. Soprano
Tenor	47. Bass	Mute
Contralto	Soprano	Deep Tone
Deep Tone	Deep Tone	58. Bass 65. Bass
42. Bass	48. Tenor	Contralto Contralto 73. Tenor
Tenor	Soprano	Soprano Soprano Mute
Contralto	Deep Tone	Deep Ione First voice Deep Tone
Soprano	49. Contralto	Brilliant First Voice
Deep Tone	Soprano	66. Bass
43. Bass	Deep Tone	59. Bass Contralto 74. Contralto
Tenor	50. Bass	Contralto Soprano Mute
Soprano	Contralto	Soprano First Voice First Voice
Deep Tone	Mute	Deep Tone Brilliant
44. Tenor	Deep Tone	Full Tone 75. Soprano
Contralto	51. Bass	Brilliant 67. Bass Mute
Deep Tone	Contralto	Tenor First Voice
45. Bass	Soprano	60. Bass Contralto Brilliant
Contralto	Mute	Contralto Soprano
Deep Tone	Deep Tone	Mute Deep Tone 76. Tenor
	n Combinations	First Voice Second Voice Mute
	n Combinations	Brilliant Deep Tone
52. Tenor 53. Bass		C and 137-i
Contralto Ten	produce and the second of the	00. Dass
	tralto Vibrato Off	61. Bass Tenor
Vibrato Off Sopr	and the state of t	Tenor Contralto 77. Tenor
	rato Off Deep Tone	Contralto Soprano Mute Soprano Deep Tone First Voice
L	Attack	
Dee	p Tone	First Voice Brilliant Brilliant

Salut D'Amour Solovox Right hand on Solovox SOPRANO Left hand on Piano DEEP TONE **ELGAR** BRILLIANT Melody In F
Right hand on Solovox
Left hand on Piano SOLOVOX CONTRALTO RUBENSTEIN DEEP TONE

Song Of The Volga Boatman





Song Of India

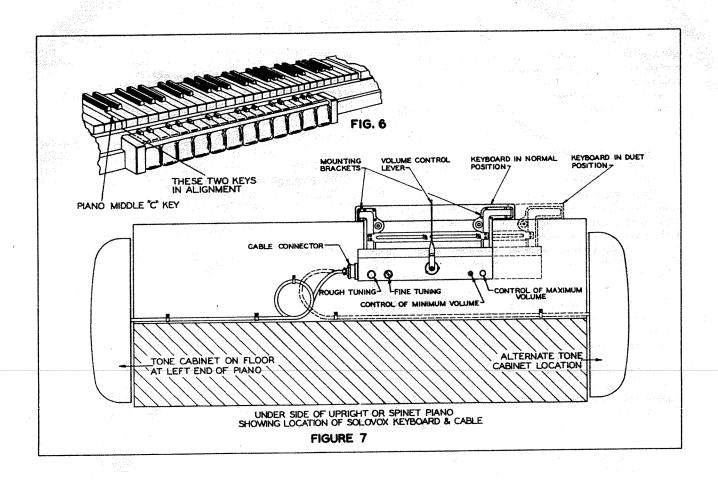
SOLOVOX CONTRALTO VIB. OFF MUTE

Right hand on Solovox Left hand on Piano





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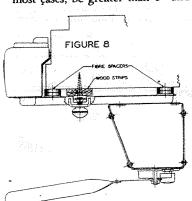
INSTALLATION INSTRUCTIONS

The Solovox has been designed for attachment to all makes and kinds of pianos. In nine cases out of ten no problems of any kind will arise as to the best method of making the installation. The following instructions, if exactly followed, will save time for the person making a first installation.

INSTALLING SOLOVOX KEYBOARD

The Solovox keyboard is held by 2 thumb screws to a steel attachment bar about 8" long, screwed to the underside of the piano. It is easily fastened in the proper position by carefully following these instructions:

1. Hold the Solovox keyboard under the piano in the position in which it is to be installed. The distance between the surfaces of the piano keys and Solovox white playing keys will, in most cases, be greater than 1" and less than 2", which is the



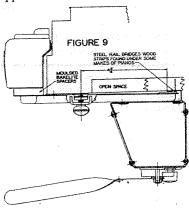
most convenient range of locations for the Solovox keyboard. If this distance happens to be less than 1", extra spacers are provided. To space the keyboard down 3/16", use one fibre spacer screwed to each of the four corners on the keyboard as shown in Fig. 8. Also, use one of the wood spacers 3/16" thick inserted between the attachment bar and under side

of the piano as shown in Fig. 8. To space it down 3/8", use two fibre spacers at each corner and two wood spacers under the attachment bar.

NOTE: Occasionally it may be necessary to raise the Solovox keyboard relative to the piano keyboard. To accomplish this, order a set of bakelite bracket spacers from the factory. Order single bracket spacer accessory set AO-19009-1 to raise the Solovox 36", double set AO-19009-2 to raise it 34", or triple set AO-19009-3 to raise it 11/8". Screws of the proper length are included in each set.

To install these spacers hold the keyboard upside down in your lap and remove 13 screws (see Fig. 7) which go through the mounting brackets into the bottom of the keyboard. Insert the spacers between the keyboard and the brackets (see Fig. 9), threading all wires carefully through the slots in the spacers, and reassemble, using the longer screws supplied.

After the number of spacers has been decided upon and installed, again take the keyboard and sit in front of the piano with the Solovox keyboard resting on your knees and slide it under the piano keyboard, using the 1/16" cardboard spacer between the Solovox keyboard and front rail of the piano. This spacer provides sufficient clearance to slide the key-



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board to the right without danger of scratching the piano. Remember that when the installation is finished the player must be able to slide the Solovox keyboard to the right and left to two positions which are exactly one octave apart in reference to the piano. Therefore be sure the attachment bar is as far as it will go toward the right end of the Solovox keyboard, and that the thumb screws are tight. See Fig. 3. (Separate sheet.)

Locate the Solovox keyboard so that the lowest "C" key of the Solovox is directly opposite the piano "C" key four octaves from the top of the piano, as shown in Fig. 6.

- 2. Holding the Solovox keyboard in this position against the piano with your knees, drive the center punch (supplied with the instrument) through the MIDDLE hole into the underside of the piano, thus locating this middle hole of the attachment bar. Now set the keyboard aside and drill a hole about 1" deep with a 5/32" drill into the bottom of the piano at the point marked by the center punch. Countersink 5/32" diameter hole approximately 1/16" deep to prevent screw from binding and to allow bar to lie flat against bottom of piano. When mounting bar, care should be taken that screw heads are not damaged by screwdriver. Any burrs may cause player's clothing to be torn when playing piano with Solovox keyboard removed. Now remove the attachment bar from the Solovox keyboard by taking out the 2 thumb screws. Put one of the 3 wood screws furnished through the middle hole of the attachment bar and screw the bar firmly to the underside of the piano. Make sure that the right and left ends of the attachment bar are in the same direction as they were before. This is necessary because the holes in the bar are not symmetrical.
- 3. Now fasten the Solovox keyboard in place with the two thumb screws. By loosening these screws, it should be possible to slide the keyboard from its extreme left position (highest Solovox "B" key opposite piano "B" key one octave below the top of the piano keyboard) to extreme right position (highest Solovox "B" key opposite piano "B," second key from the top of the piano keyboard). If the keyboard moves through this compass, the attachment bar has been correctly located. If the keyboard does not move through this range, you have probably interchanged the ends of the attachment bar. Merely turn the bar around end for end without removing the wood screw.
- 4. Now drive the center punch through the two holes at the ends of the attachment bar, remove the keyboard, unscrew attachment bar, and drill holes 1" deep into the underside of the piano at the two points marked by the center punch. Screw the attachment bar to the piano as before through the middle hole, again making sure that the right and left ends of the bar are as before. Put in the two end wood screws. This completes the installation of the attachment bar onto the piano. Fasten the keyboard in place with the two thumb screws.

If, through some error, it is found that the Solovox keyboard has been mounted incorrectly or if for any reason it must be remounted in a slightly different position, remove the attachment bar and turn it end for end before repeating this procedure. As the screw holes in the attachment bar are purposely made unsymmetrical, the new holes made in the piano will be far enough from the old ones to eliminate any difficulty.

NOTE: On some pianos the underside of the keyboard is built

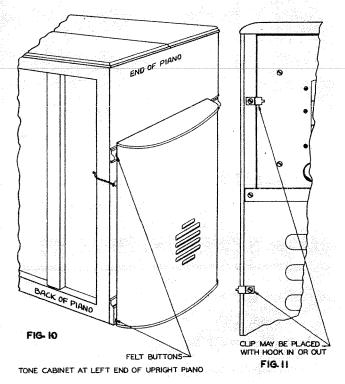
in panels. To install a Solovox keyboard on such an instrument, a mounting angle may be used to bridge these wood strips (see Fig. 9). Mounting angle accessory set AO-19008-1, which may be ordered from the factory, includes the angle and suitable nails for fastening.

CONNECTING THE CABLES

After the keyboard has been mounted on the piano, connect the cable from the tone cabinet to the left end of the keyboard assembly. Be sure to connect the plug securely so that the faces of the plug and its receptacle are together. When removing cable, loosen connector by taking hold of the connector body — NOT BY PULLING ON THE CABLE.

INSTALLING CABLE CLIPS

These clips should be screwed to the underside of the piano as shown in Fig. 7. Allow sufficient extra cable so that the keyboard may travel freely to its highest position along the piano.



INSTALLING TONE CABINET

For Grand Pianos—The tone cabinet is hung on chains (supplied with cabinet) substantially out of sight, in a horizontal position under the body of the piano. In some cases three chains may be used, in others four. The chains are hooked to clips which are held under screwheads on the back of the tone cabinet as shown in Fig. 11. The clips may be placed under any screwhead to provide a wide variety of points of attachment to meet various cases.

(Continued on next page)

To facilitate the choice of locations, a large cardboard tempiate, or pattern, of the cabinet will be found in the packing. On the template are marked the locations of various screwheads as found on the tone cabinet. By holding it up under the piano in different positions, you may pick locations for fastening chains to the crossbeams of the piano. Nails are provided having heads which hold the chains securely. The object is, of course, to arrange matters so that the chains are as vertical as possible and hold the tone cabinet as close as possible to the underside of the piano. A little experimentation with the template will almost invariably produce a good solution to this problem.

For Upright Pianos—Refer to Fig. 10 and note that the tone cabinet stands on the floor with its back edge next to the back edge of the piano, and as close to it as possible. A chain (supplied with cabinet) is hooked to a clip held under a screwhead

as shown in Fig. 11. The chain passes around a corner and is nailed, with one of the chain nails supplied, to the back framing of the piano. The object is to prevent the tone cabinet from being accidentally knocked over. The cabinet may be quickly detached by unhooking the chain from the clip. If desired, another chain may be used, nailed to the underside of the piano keyboard, and hooked to another clip under a screwhead chosen at the proper point on the front edge of the cabinet.

USE OF FELT BUTTONS

To avoid scratching the piano, felt buttons, mounted on tacks, have been supplied. With the cabinet in its chosen location, note the exact points where the tone cabinet might touch the piano case, and mount a felt button on the cabinet (not on the piano).

TUNING AND SIMPLE ADJUSTMENTS

Tuning. The Solovox ordinarily remains in tune indefinitely. However, because of the variation in pitch of the piano or other instrument with which the Solovox is to be played, two tuning adjustment knobs are provided. These are located under the keyboard to the left of the volume control. First adjust the knob farthest to the left (rough tuning adjustment) for approximate tuning, with the other knob (fine tuning adjustment) in its center position. Then adjust the fine tuning knob until the tuning is accurate.

Tuning the Solovox is a very simple matter as all of the tones are simultaneously tuned by making this single adjustment. For greatest accuracy, only the CONTRALTO, VIBRATO OFF and DEEP TONE control tablets should be "in" and the middle octave F# key of the Solovox tuned to the corresponding piano note. Note that the instrument may be off-key if the VIBRATO tablet is set midway between its on and off positions. Always push the VIBRATO fully in at the top or bottom.

Maximum and Minimum Volume Controls. The maximum volume control knob is located under the keyboard to the right of the volume control. It regulates the maximum loudness when the kneeoperated lever is all the way to the right.

The minimum volume control is located a little to the left of the maximum volume control, and is provided with a screwdriver slot for adjusting. It is used to regulate the minimum loudness when the knee-operated lever is all the way to the left.

When readjusting both controls, always set the minimum volume control first, as it has some effect on the maximum volume as well. To do this, set the tablets to some useful setting such as CONTRALTO and DEEP TONE. With the knee-operated volume control released, so that it points directly out, hold down a key and turn the slotted minimum volume control until the note is as soft as is useful. (When once set this control will probably not need to be changed. If you ever move it, be sure to check the maximum volume afterwards.)

(Continued on next page)

To adjust the maximum volume control knob, move the knee-operated volume control as far as it will go to the right, holding down a key, and turn the knob to the right until the volume becomes as loud as is useful. Do not turn the knob to the right any further as to do so will only mean that the knee-operated volume control will become unnecessarily sensitive, which is particularly undesirable for the novice and beginner.

SERVICE SUGGESTIONS

The materials and electrical parts in the Hammond Solovox are of the finest quality available. Aside from occasional replacement of a vacuum tube, no service problems need be expected to arise. A few conditions which might possibly be encountered are listed below with information which will enable the owner to correct them without difficulty.

Cable connector. In case the Solovox fails to play correctly, first make sure that the cable connector in the left end of the keyboard under the piano is secure. The face of the plug and its receptacle should be together. If the Solovox does not play properly, this is the most likely cause.

Replacing tubes. There are thirteen standard radio tubes in the Solovox, all clearly identified at their sockets, which can be tested and replaced if necessary by any radio dealer. All tubes can be reached from the back of the tone cabinet. Be sure to replace all tubes in the exact sockets from which they came.

The two type 6SK7 control tubes (V9 and V10) should be similar, to avoid undesirable thumps when playing. It is therefore recommended that both be replaced at the same time with new tubes of the same make.

One key does not sound. If a certain key fails to play or emits an irregular sputtering or crackling on any of the register controls, it probably has a dirty control contact. Sometimes this can be cleared by striking the silent key sharply and repeatedly. If this does not correct the difficulty, read paragraph 6 on page 11 of the "Technical Information" booklet which explains a comparatively simple adjustment that can be made.

While it seldom happens that the Solovox needs any adjustment other than those indicated, if after making these suggested adjustments your Solovox still does not perform properly, we suggest that you get in touch with the dealer from whom it was purchased. If this dealer is not readily available, either your local Hammond organ dealer or any competent radio service man will be able to diagnose the trouble and correct it. For this purpose the service man will require the booklet "Technical Information on the Solovox, Model L" and the wiring diagrams which you received with your Solovox and which should be carefully preserved in case they are ever needed.

If you need this service literature and do not have it, we will supply it without charge on receipt of the model and serial numbers shown on the keyboard and on the tone cabinet.