



CONSOLE CONNECTOR KIT 7022

INSTALLATION INSTRUCTIONS

FOR USE WITH: Pianos providing an output signal of less than 1.5 volts
LESLIE Speaker Set Model 60

KIT CONTENT

Control Assembly	112670
Screw, sheet metal, 8 x 3/4, Phillips head (2)	012476
Installation Instructions	113120

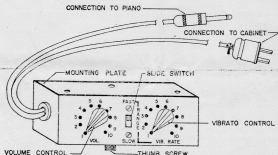


Figure 1. Control Assembly 112670

INSTALLATION

Separate the control case from its mounting plate by turning the black thumb screw (figure 1) on the bottom of the case.

Using the screws provided, fasten the plate under the keyboard shelf, on the bass side of the piano. Then align the control case with the mounting plate and tighten the thumb screw.

Two leads come from the control unit. One wire is long and it terminates in a 5-prong plug. Insert this plug into the INPUT socket on the back of the main speaker cabinet (figure 2). Plug the short lead from the control units into the earphone jack on the piano.

Prepare the LESLIE Speaker System Model 60 for operation as described in the owner's manual or service manual.

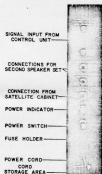


Figure 2. Rear of Main Cabinet, Showing Connections

SOUND CONTROL

On the control case are two knobs and a slide switch. The left-hand knob controls the volume of the output. The other two items control the vibrato. The slide switch selects a range, either FAST or SLOW, and the knob setting determines the amount of vibrato within the limits of the range selected. Turning either knob completely counter-clockwise sets the control to its off position. The farther clockwise the knob is turned the greater the volume or the greater the rate of tremolo which the system will produce.

When the tremolo knob is set for off (fully counter-clockwise) the sound heard will be the "straight" tones produced by the piano. Moving the control to the first operational setting produces a beautiful chorus effect, which is one of the notable effects this equipment can achieve. Other settings give the effect of a celeste, and in the upper portions of the range a vibraharp sound, the primary effect for which the system was designed.

Model 60 System Used Alone

If the model 60 system is used alone - that is, if no other amplifiers and speakers are built into the piano or connected ahead of the model 60, the slide switch should be set at SLOW. The available tremolo range is then spread over the full range of the knob, and settings can be made to any desired point.

The volume control operates only to control loudness, and its setting is a matter of taste.

Used With Additional Amplifier

If an additional amplifier is used ahead of the model 60 system the slide switch should be set at FAST. This is desirable because of the beat frequencies created when more speakers operate together. As before, the tremolo knob operates over its entire range to regulate the tremolo speed.

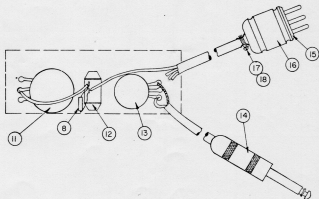
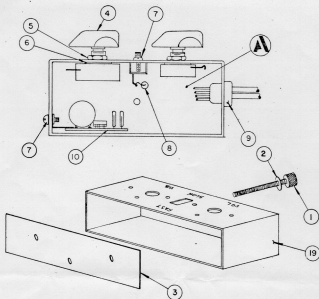
The setting of the volume control is important in achieving the desired quality of sound, since the volume control regulates the depth, or amount, of the tremolo. Having the volume control set too far down (counter-clockwise) will cause only the piano speaker to be heard. On the other hand, too high a setting may produce beat sounds which are highly undesirable. It is perhaps best at the beginning to try both these extremes and listen to the results. Then set the control in the middle of its range and note the improvement in the performance of the system. After the model 60 volume control has been initially set for the level you desire, the volume control on the piano may be used to regulate volume as you play.

Variation

While the settings just described both for the model 60 system alone and for the system when used with additional amplifiers are those which would generally be used, one may operate the equipment at various other settings for special effects (for instance, at FAST when the model 60 is used alone, or at SLOW with another speaker to produce a noticeable beat note). Familiarity with the control operation, and your own musical taste, will soon indicate which settings you personally prefer.

Moving, Shipping

If the piano to which the control is attached is to be moved, the control may easily be detached. Turn the thumb screw at the bottom of the control case until the case comes free of the mounting plate. Unplug the cords leading to the piano jack and to the LESLIE speaker cabinet. The control and cords may be stored in the satellite cabinet.



PARTS LIST: 112670 CONTROL ASSEMBLY

Item	Description	Part No.
1	Screw, machine, knurled, 10-24 x 1-9/16	110810
2	Washer, spring, .208ID x .380OD	112710
3	Plate, cover	112690
4	Knob (includes screw), black	020287
5	Nut, hex, 3/8-32 x 1/2 x 3/32	020388
6	Washer, lock, 3/8 x 11/16 x .035	020396
7	Screw, sheet metal, 6 x 1/4, Phillips head	111530
8	Resistor, 47K, 1/2W, 10% (R6)	028506
9	Bushing, strain relief, 6P3-4	037986
10	Circuit Board Assembly	112660
11	Potentiometer, 500K, CCW (R5)	109660
12	Switch, slide, SPST	110770
13	Potentiometer, 100K, CW (R1)	055186
14	Plug, phone, 2-circuit, shielded	111130
15	Plug, 5-pin	013060
16	Cap, plug	022046
17	Clamp	022061
18	Screw, machine, 6-32 x 3/8	027979
19	Chassis	112680

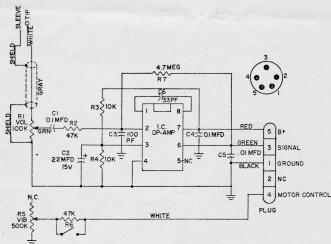


Figure 4. Schematic, Control 112670
(Plug Shown from Wire End)

Integrated Circuit, operational amplifier	118040
Capacitor, polyester, 0.1 mfd, 200V (C1, C4)	022251
Capacitor, tantalum, 22 mfd, 15V (C2)	062638
Capacitor, disc, 100 pF, 1000V (C3)	028027
Capacitor, disc, 0.01 mfd, 1000V (C5)	060467
Capacitor, disc, 33 pF, 1000V, 10% (C6)	118030
Resistor, 47K, 1/2W, 10% (R2)	020506
Resistor, 10K, 1/2W, 10% (R3, R4)	028548
Resistor, 4.7 megohms, 1/2W, 10% (R7)	013623
Circuit Board, etched	112270

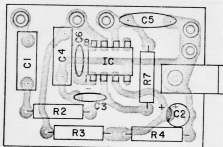


Figure 5. Circuit Board
Assembly 112660

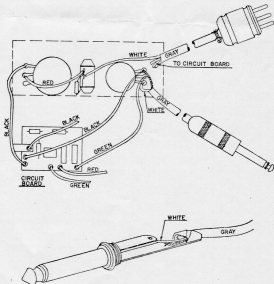
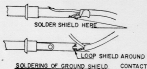


Figure 6. Wiring