

# INSTALLATION INSTRUCTIONS FOR CONNECTING LESLIE MODELS 22R, 22H, 21H, AND 31H ABOVE 5200 USING 428 TREMOLO CONTROL, TO VARIOUS HAMMOND ORGANS

The Leslie 428 Tremolo Control is designed to provide remote tremolo control for the Leslie cabinet from the organ console. The 428 Kit consists of a tremolo control mounted at the organ keyboard and a terminal box mounted inside the organ console. The Leslie cabinets connect to the consoles by means of the regular cabinet cable furnished with the console.

Tremol control is obtained by turning the rotor driving motors "on and off" by means of a relay in the Leslie amplifier chassis. This relay, operated by the 428 Tremolo Control, also controls the built in electric brake. Two of the three sockets on the Leslie amplifier chassis are "controlled", while the third is always "on". By connecting the bass and treble rotor driving motors to these sockets in various combinations different tremolo effects may be obtained.

FOR MODELS : A, B, C, D, E, BV, CV, B-2, C-2, RT-2, B-3, C-3, RT-3 (refer to illustration)

1. Attach tremolo control case to wooden rail in front of lower manual by choosing the two mounting holes in case which best centers wood screw in rail, case location optional, but generally preferred on left-hand side in front of pre-set keys. Use wood screws provided.
2. Unbolt and lift the manuals to pass the control cable into the generator compartment.
  - (a) An alternate way is to push the cable through the space under the manuals sealed by a felt strip. Where the manuals underside meets the console kneeboard, a felt dust seal will be found. Near left end of seal use a small screwdriver to push the felt down and create an opening to push the cable through into the generator compartment. Then reach behind the start motor and pull cable through.
  - (b) Another alternate way is to run the cable down along the corner formed by the console inner side and the kneeboard, and then underneath to the back. With the back of console removed, cut a small notch in the shelf to allow control cable entry into the interior.
3. Mount tremolo terminal box inside organ at any convenient point. Be sure control cables will reach unit before mounting with provided wood screws. Attach 2 wire tremolo cable to 2 wire cable from 428 Tremolo terminal box with wire nuts\*.
4. Disconnect wires from G.G. pre-amplifier terminals and connect to screw terminals of terminal box.
5. Attach red and black wires from terminal box to G.G. pre-amplifier terminals.
6. Attach yellow wire from terminal box to any convenient ground screw.
7. Models A, B, C, D, E, BV, CV only  
 Attach brown wires from terminal box to pre-amplifier B+ terminal along with wire from cable.  
 Models B-2, C-2, RT-2 only  
 Attach brown wire from terminal box to brown wire on furnished Octal Tube Adapter (push insulating sleeve over terminal) Place adapter in 6X5 socket and 6X5 tube in adapter.  
 Models B-3, C-3, RT-3 only  
 Proceed as in B-2 series except wires are soldered to pre-amp and miniature 6X4 adapter used.
8. Attach console cable to the Leslie cabinet. Installation now ready for operation, See Owner's Manual for volume control settings.

FOR MODEL A-100

To properly connect the Leslies to this Model the A-100 Echo Control Kit, complete with 30 ft. cable, Echo Control and detailed instructions, should be ordered and used with furnished 428 Tremolo Control.

FOR MODEL M1, M2, M3

To properly connect the Leslies to these Models the 3M Echo Control Kit, complete with 30 ft. cable, Echo Control and detailed instructions, should be ordered and used with furnished 428 Tremolo Control.

## MULTIPLE LESLIE INSTALLATION

In a multiple installation (using above cabinets) the tremolo control provides "on-off" tremolo control on all cabinets. When adding additional cabinets be sure to connect a Leslie 5A relay at input of each. For information on multiple installation using Leslie's other than listed above or Hammond cabinets refer to Owner's Service Manual.

