BULLETIN No. 106

MODEL 500-700-800 Series Organs

Estey ELECTRONICS, INC.
SINCE 1846

SERVICE FLASHES

SUBJECT: Adjustment of the Neon Divider Oscillators.

The neon divider oscillators are critically affected by the regulated 250 volts derived from the power supply circuit utilizing 1/2 of a 12AX7 triode and an NE-83 neon as a voltage regulator.

The frequency of an individual neon oscillator is dependent upon the amount of B+ voltage applied by the 3.9-13.9 meg ohm rheostat in conjunction with the B+ regulator. Should a variation in AC line voltage cause the B+ voltage to vary slightly, the oscillator is apt to change frequency unless properly adjusted. Therefore, it is recommended that the following adjustments be made whenever the organ is serviced for any reason.

Step A. Remove the tone generator cover.

Step B. Connect a VTVM or VOMA meter to the 250 V.D.C. regulated voltage, (#18 buss wire connecting all divider rheostats in tone generator chassis), using the chassis as the grounding point.

Step C. Adjust the B+ regulator potentiometer, (located in the power supply section) for a reading of 225 volts on the meter.

Step D. Starting with the highest note on the keyboard, play each note in sequence down the keyboard. All divider oscillato should perform normally. If one or more oscillators change pitch drastically, gargle, etc., adjust the 3.9 meg. to 13.9 meg rheostat until the proper pitch is obtained. Set the rheostat in the position at which the oscillator appears to lock suddenly into proper pitch or frequency division.

NOTE: Adjustments must be made with the highest note on the keyboard, first and each lower note in succession.

Step E. Adjust the B+ regulator potentiometer for a reading of 275 volts on the meter and repeat Step D.

Step F. Return the B+ reading to 250 VDC.