LYRICON SET UP PROCEDURE

General Procedure

1. Remove the ten (10) panel screws.
2. Gently lift panel from case assembly and position panel on edge in a convenient location.
3. Familiarize yourself with the board layout. Going from left (key section) to right (output section) is the (1) input board, (2) filter board and (3) poly board.
4. Plug Lyricon into AC line.

Equipment

1. Lyricon body or body test box.
2. Oscilloscope
3. Voltmeter

Adjustments

1. Timbre contrd calibration - controls the duty cycle of the signal presented to the filters. Fully ccw should generate a square wave while fully cw generates a 20% dc.
    a) Set P8 and P9 fcw on input board (fig. 1)
    b) Set "Timber" control fccw
    c) Connect scope to C1 on poly board (fig. 2)
    d) Adjust P8 for a 50% dc
    e) Set "Timber" fcw
    f) Adjust P9 for a 20% dc
    g) Repeat (b) through (f) several times until the proper setup is observed
2. Balance Modulators (Null)
    a) Set sensitivity control fcw
    b) Set wind threshold and tone color threshold fccw
    c) Connect scope lead to p+ A on poly board (fig. 2)
    d) Turn P11 on input board fcw (fig. 3)
    e) Adjust "zero bal" on panel for min signal

f) Connect scope to Cr 2 on input board

g) Adjust P3 on input board for min signal

h) Connect scope to C1 on poly board (fig. 2)

i) Adjust P11 for min signal

3. Glissando Calibration - to adjust the range of the "glissando" control to cause a max of a one octave change from a tight reed to a relaxed.

a) Connect scope to C1 on poly board (fig. 2)

b) Set "Timbre" control fccw

c) Set wind threshold fcw

d) Set "glissando" fcw

e) Observe frequency on scope with mouthpiece switch "off". Turn mouthpiece switch "on". The frequency should half. If not then adjust P22 on panel until the frequency halfs from the on position to the off.

4. Tuning Control Calibration - calibrates the front tuning control to cause "c" to fall between 3 and 4.

a) Connect scope to C1 on poly board (fig. 3)

b) Set "key" switch to "C"

c) Set "tuning" control to 2

d) Turn off mouthpiece switch

e) Connect a 60 Hz line source to the horizontal input of the scope

f) Turn "Timbre" fcw

g) Set scope for a lissajous figure

h) Turn the "Range" switch to the "low" position

i) Depress body keys (fingering) for a low "C" note

j) Adjust P4 on input board (fig. 1) for "0" beat with one pulse

5. Range Switch Calibration

a) With the above set up ("0" beat) turn range switch to the "mid" position

b) Adjust P20 on panel (fig. 1) for a "0" beat with two pulses.

c) Turn range switch to the "hi" position

d) Adjust P21 on panel for a "0" beat with four (4) pulses

6. Tuning Filters

a) Set range and filter switch to the "mid" position

b) Set wind threshold to 7

c) Make sure mouthpiece control is off

d) Connect the scope to the output jack

e) Turn "mixer" control fccw

f) Turn "Basic overtone" switch to the on position, all filter "proportion" control fccw, and all sustains fcc

g) Turn F1 proportion control fcw and F1 sustain on 2

h) Adjust loudness control and scope sensitivity for a comfortable amplitude

*i) Adjust P30 on filter board (fig. 1) for a max presentation of the fundamental sine wave

j) Turn F1 proportion fccw

k) Repeat the above procedure for f2 through f5 using P31 for f2, P32 for f3, P33 for f4 and P34 for f5. Each filter output should display the appropriate multiple of the fundamental. The respective sustains may have to be increased to enhance the presentation.

*Note: F1 filter adjustment may be on front panel just to the left of F1 proportion control.