

Portable Sold And
Philosophers'
Stones

David Rosenboom

(Music With Trills)

1972

"Portable Gold and Philosophers' Stones"

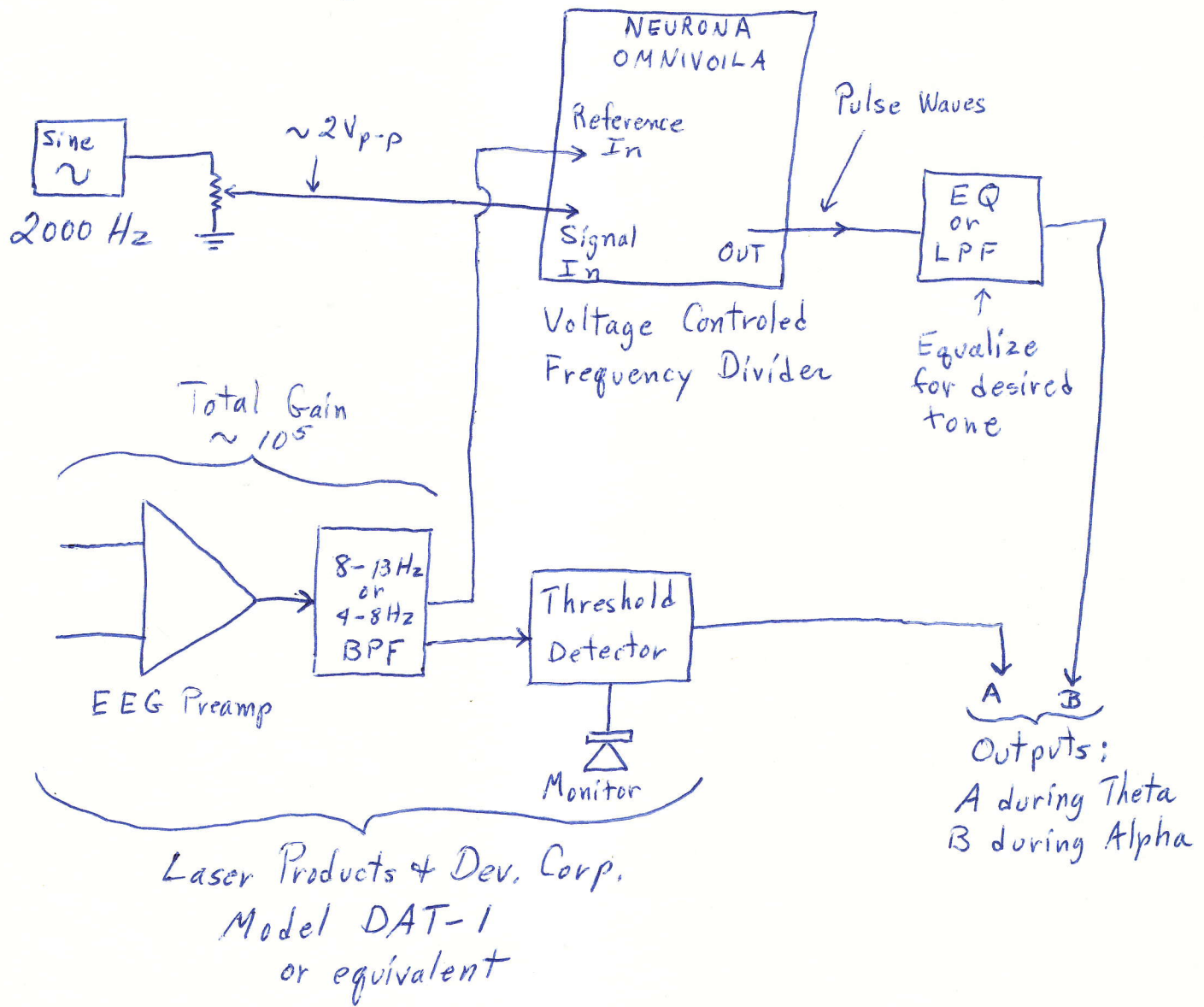
(Music with trills)

David Rosenboom

for Mimi

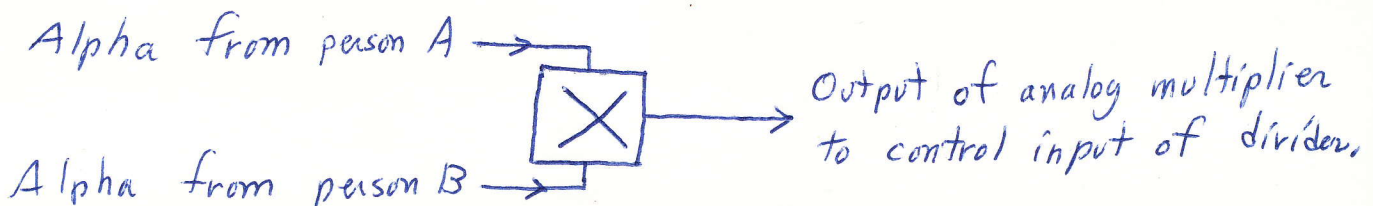
May be played by one to four individuals using EEG Theta and Alpha feedback or one or two pairs of performers wired for "dual-contingent" feedback. The beginning, length and ending of the performance are all up to the performers. The sequence of Theta - Alpha - Theta is to be maintained. When performers are making Theta waves there will be clicking sounds corresponding to the frequency of the Theta waves. When performers are making Alpha waves there will be music according to the score. All sounds are fed into a regenerative, stereo tape delay system as shown in the equipment diagram.

Equipment: (Dividing)

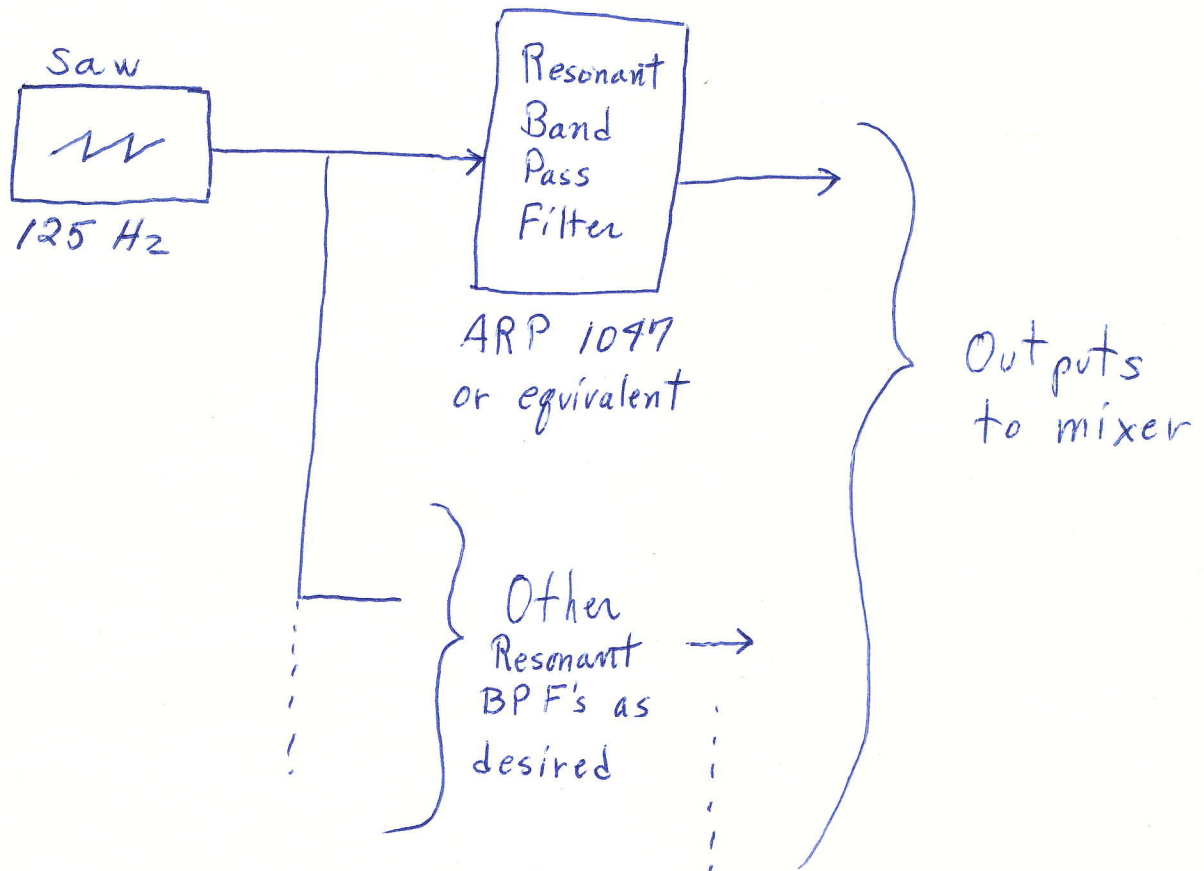


May be duplicated for up to four performers but all should use the same sine wave source.

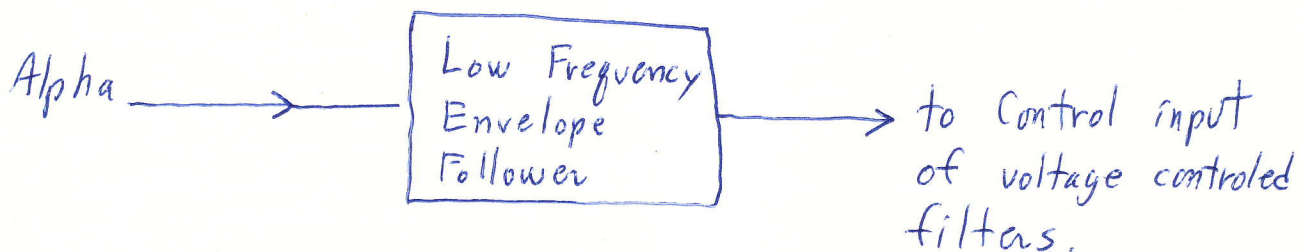
For "dual contingent" feedback, (one or two pairs of performers), hook up as follows. Only one or two frequency dividers will be used.



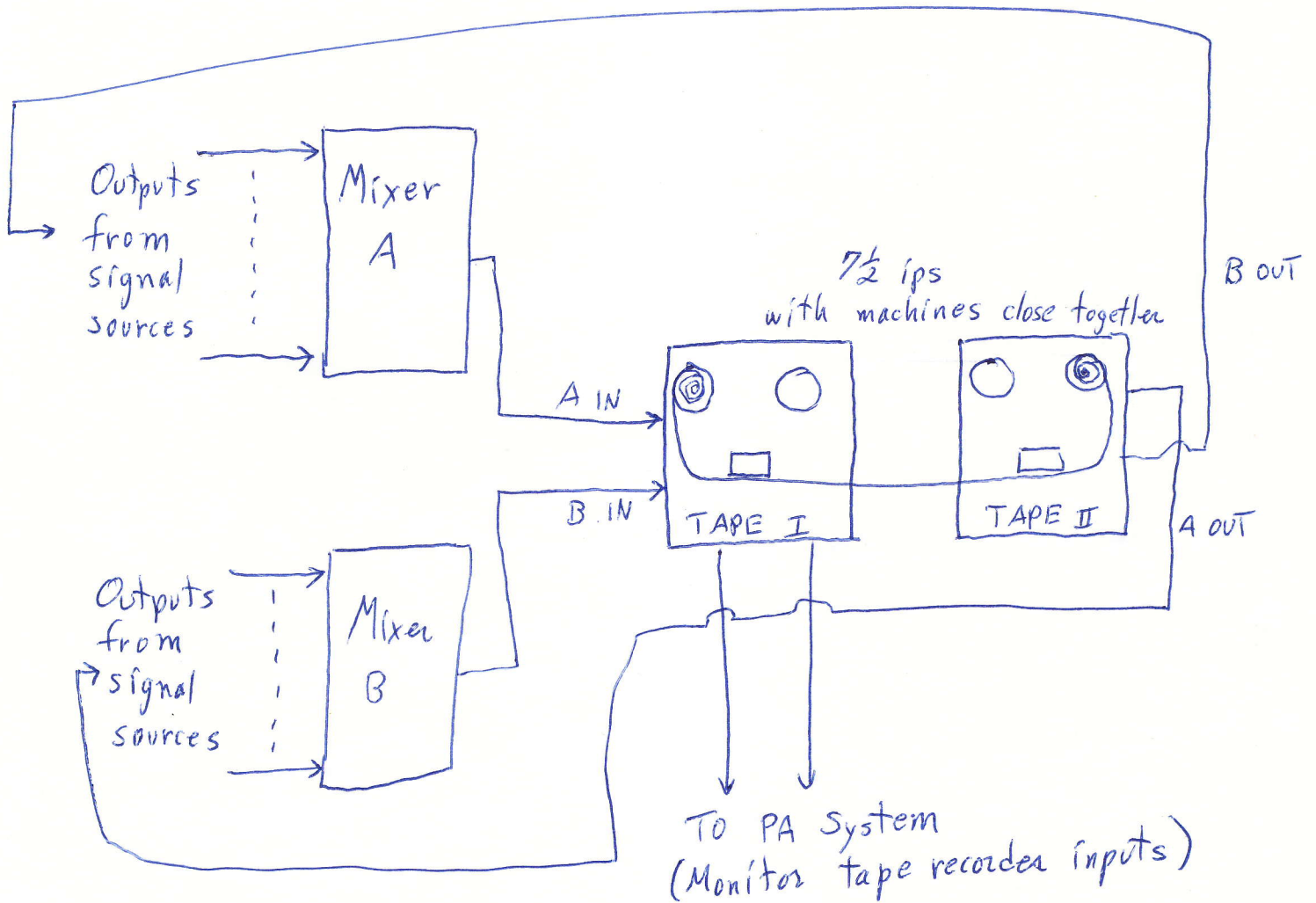
Equipment: (Multiplying)



Three control modes are possible for these filters. One, they may be performed by hand. Two, they may be controlled by envelop generators. Three, (most desirable), they may be controlled by Alpha envelopes, thus:



Delay system:



(Consult the biofeedback literature, including many papers by the composer, for technical information.)

The Music:

Start with a drone chosen from intervals $1:2:3:4$ from the multiplying system. Slowly begin to make Theta waves with clicking sounds. When finished with Theta switch to Alpha and bring in divider sounds. Proceed by making music with trills. There are two types of trills; Fast trills from the frequency divider system. Slow trills from the frequency multiplication, (fiftas), system, preferably following Alpha envelopes. The sounds should move among the harmonic series in correspondence to Alpha burst lengths whatever control mode is used. The trills will, thus, be extremely slow and get slower as alpha bursts lengthen.

The intervals used are derived from a harmonic (multiplication) and a subharmonic (division) series used simultaneously. The chords shown contain the intervalic relationships to be emphasized. Chords may be built up with the delay system. Notes in parentheses may be deleted or added at will.

Subharmonic (Division)

Trills
high frequency sine

low frequency sawtooth

Harmonic (Multiplication)

Slow Trills

Chords:

Trills follow Alpha waveforms
and envelopes.

When finished with Alpha and maximum ^{desired} harmonic complexity is reached, Move into Theta clicking and let die naturally with delay.

30

David R. Hunter

Story Point

4/5/72