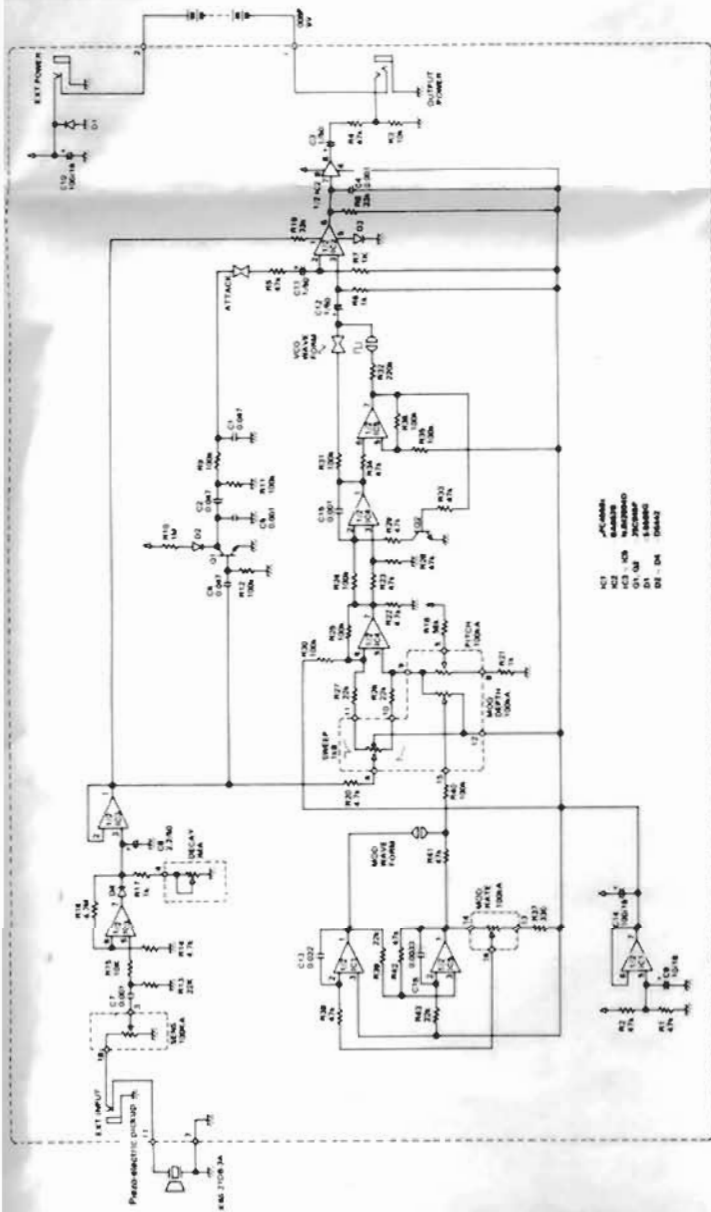


Circuit Diagram



Circuit Description

The percussion synthesizer produces a wide range of sound effects from an input signal. This signal is generated by a piezo-electric pick-up (Pad) or maybe from an external source.

This signal generates a sweep voltage of this form (see original copy) and is used to control a VCA and a VCO. The sweep voltage is also processed by a control voltage amplifier (CVA) which allows up sweep or down sweep using a single control. A low frequency oscillator (LFO) is also included in the circuit and is mixed with the sweep wave form at the C.V.A.

An "attack sound" circuit is used to give the effect of a stick striking a skin. This makes a very life like percussive sound.

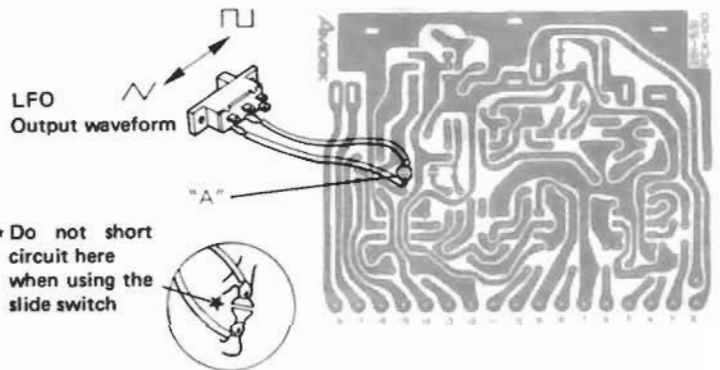
Modification

REMOVE THE BATTERY BEFORE MAKING ANY MODIFICATIONS

On PCK-100 it is possible to obtain variation of waveforms by making use of the auxiliary slide switch (called the user's slide switch, to be wired to the user's option).

LFO Output Modification






LFO's output waveform, which is initially in the shape of \square , can be changed to \sim . When desired to select one on the other make connection to the slide switch as shown on Fig. 1.

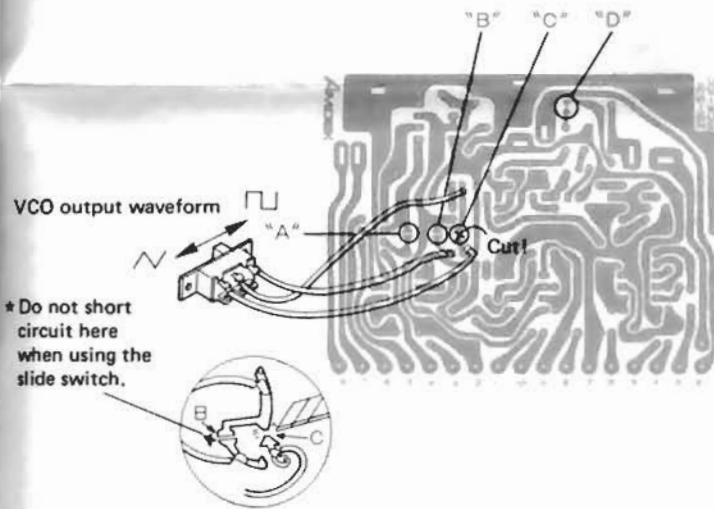







If, however, only a change of the waveform to \sim is required, solder the point "A" on Fig 2 to join the circuit lands as shown.



VCO Output Modification

VCO's output waveform, initially in the shape of , can be changed to  or to . When desired to select one or other of  and  connect the slide switch as shown in Fig. 3, cutting the pattern at "C" to open the circuit (using a knife edge, with great care nor to slip)

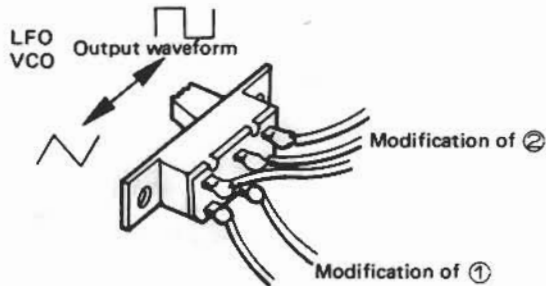


If, however, only a change in waveform is required solder the point "B" on Fig. 3 joining the circuit as shown. The waveform now becomes . By cutting the pattern at "C", it will be changed to . The waveform  is for a sound feeling of roundness,  is for hardness, and  is for some characteristic between the two.

"Attack Sound" Modification

To eliminate the effect of attack sound, cut the pattern at "D" using a knife edge.

* It is also possible to achieve a combined modification of 1 and 2 by connecting the slide switch as shown below.



VCO, LFO Frequency Range Modification

Frequency range of VCO and LFO are determined by C15 (0.001 μ) and C13 (0.022 μ) respectively. Change to a lower capacitance to obtain a higher frequency range and, vice versa, (the larger the capacitance, the lower the frequency range.)

Decay Time Modification

Decay time is determined by C8 (2.2 μ , 50V). The larger the capacitance, the longer the decay, and vice versa.

Try the above modifications with the ranges indicated below.

C15	0.001 μ - 220P
C13	0.1 μ - 0.0033 μ
C8	1 μ - 10 μ



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* Specifications are subject to change without notice.