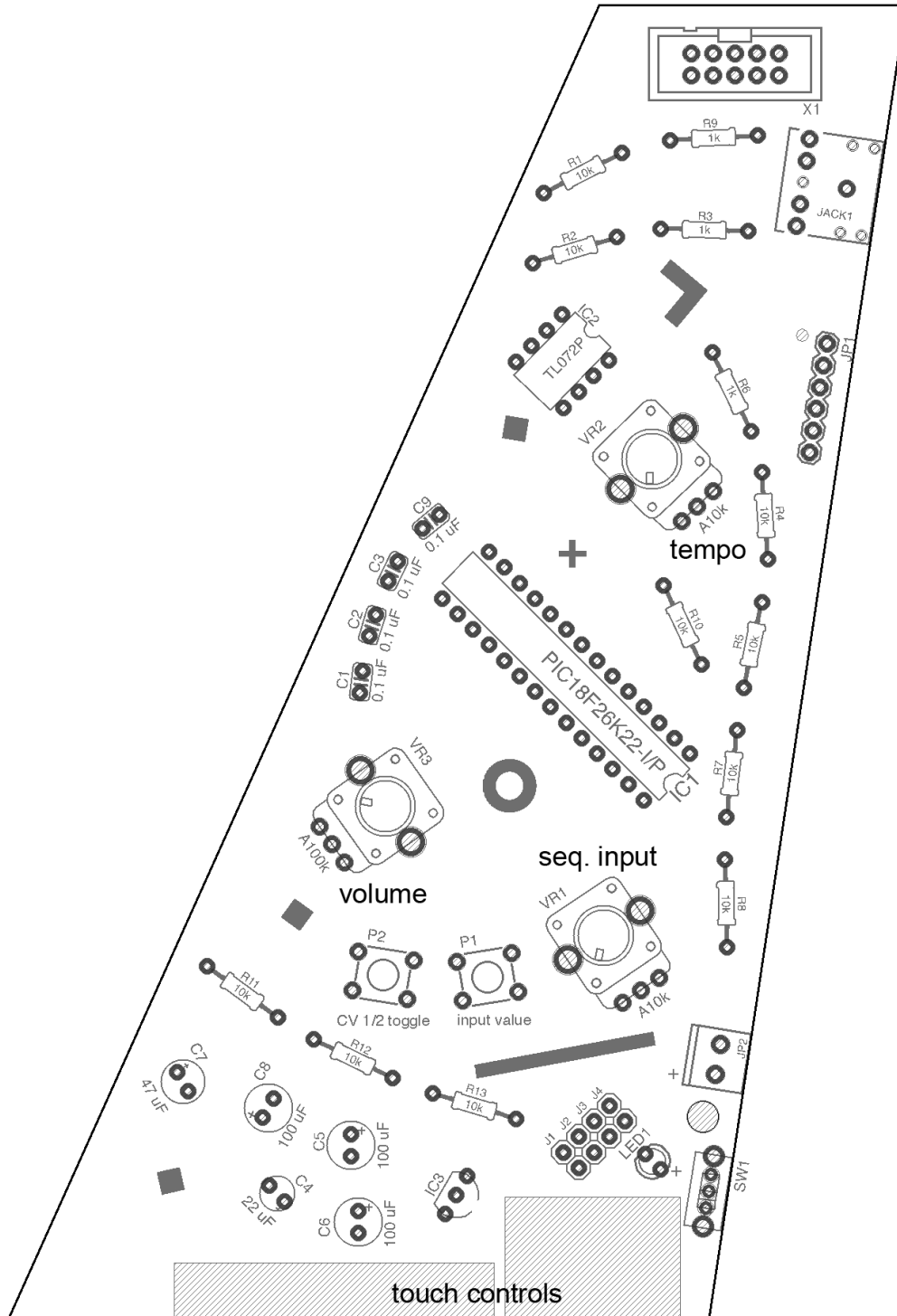


# Polytik – Core Workshop 1\_1 (April, 2017) JR



The Core Workshop is a mini version of the Polytik Core module.

It has been designed for Dirty Electronics workshops where the Polytik Combi module is built.

**Full details of Polytik and user guide: [www.polytik.co.uk](http://www.polytik.co.uk)**

## **Features**

Multi-board/PCB artwork (polyptych)

Buffered output

Programmable sequencer (as 'dot' display feature in Core module)

CV outputs x2 (independent)

External clock/sync option

Touch and knob/pot controls

Mini jack/headphone output

Battery powered

## **User-input/sequence programming (VR1/P1/P2/Touch)**

Polytik Core Workshop can be programmed using pot VR1 and/or the touch controls and user-input value select button P1. Two control voltages, CV A and CV B, can be programmed in this way with a maximum of 16 steps/CV values. Note: sound module connected to IDE Header (ribbon con.).

P2 toggles between control voltages CV A and CV B (default power-on = CV A).

**NOTE: SEQUENCES WILL BE LOST/RE-SET ON POWER-OFF/ON**

## **Programming**

1. Connect sound module to IDE Header (ribbon con.).

2. Switch on power (S1)

Example using Combi and CV A - set cross-fade to VCO (see Combi Layout)

4. Adjust VR1 to select pitch/CV A value (default on power-on). A continuous pitch should sound, one step looped.

5. Store CV value using button P1.

6. Adjust VR1 to select pitch (step 2). A 2-step sequence will loop (the tempo of the sequence can be adjusted with VR2).

7. Etc. Values can be added until 16-steps are completed. On writing the seventeenth step the values will be automatically cleared and the process will begin a new.

The same value can be selected to create different step length.

In this example re. pitch, pseudo silences can be generated by selecting values at the extremes of the range (above or below audible frequencies).

Holding P1 and simultaneously adjusting VR4 will produce a kind of continuous read/write, 'gestural' programming.

The same method can be applied to programming CV B. Use P2 to toggle to CV B (VR1 and P1 will now program CV B). When using the Combi, this will program the feedback - set cross-fade to feedback (see Combi Layout).

### **Touch controls A/B**

Lick fingers for touch control. The touch controls pull the signal to ground, reducing the voltage. 'Tune' the range of the touch controls by adjusting VR1. The touch controls of the Core are for fine value adjustments only.

### **External programming**

In addition to user-input/sequence programming, it is possible to erase and write data on to the PIC microprocessor (IC1) to create new data/sequences. A compatible programmer can be connected to the ICSP header (dot = pin 1). This should be considered a hack rather than a standard feature of Polytik. The Core/Core Workshop was developed using PIC18F26K22, PICKIT3 and software MPLAB X IDE v2.26. Code for the default pre-sets can be downloaded from the Polytik website.

### **NOTE!**

Differences with Polytik Core module version Core Workshop 1\_1 (April, 2017) JR battery terminal polarity