



64'er 10/86 2Bit Digitizer DIY Project

Print this page without any "fit to page" option to have a 1:1 layout

Cut out Top & Bottom design

Stick Bottom design onto the Bottom side - not permanent - so you can remove it easily

Use fineliner to transfer trace cuts through the paper onto the Bottom side

> Cut Bottom traces faster with a 3mm drill (even can be done by hand)

Make small "1-1" bridges on Bottom (use rigid wire)

Stick Top design onto the Top Layer, this will be an assembly guide and stays on there

Make all blue bridges with plain rigid copper wire (faster than insulated)

Make all gray, yellow, black, red indicated bridges with insulated copper wire

Solder all resistors, solder IC sockets

Solder Trimpot P, Solder all capacitors

Solder a cable to the Dsub connector and connect the cable to the board:

1 - Pin 1 on board 7 - 5VDC on board

2 - Pin 2 on board 8 - Topmost GND on board

Solder Audio cable to Signal & GND in the corner, attach your preferred audio In connector

Insert IC's into sockets and make a calibration test with alphadrummer

R1, R2 - 1k2

R3, R4 - 18k

R5, R6 - 22k

R7, R8 - 470R

C1 - 100nF ceramic (104)

C3 - electrolytic 22uF 16V

C4 - electrolytic 47uF 16V

P - piher trimmer 2k5

IC1 - TL074CN

IC2 - 74LS04

IC3 - 74LS00

3x IC socket 14pin

Veroboard (stripe board) at least 21x21 wide.

Dsub9F + casing

1m 4x0,25 shielded cable

1m rigid insulated copper wire ~0,25 - for bridges (old unflexible CAT cables are nice for that)

Shielded Audio cable

Preferred Audio in connector

Enclosure

Part values and Designations taken from AK Tronic digitizer 2134, same as Rex Datentechnik 9614. Values are slightly different than the original 64'er circuit. Sampler is compatible with speech basic and alphadrummer, maybe even more programs. As always, you build this at your own risk, I cannot guarantee that this schematic is error free. I built it once and it worked fine.

Calibration process using alphadrummer: Put sampler into port 2, joy in port 1 - Or use keys Esc 1 2 Ctrl Space for simulated joystick. Go into the sampling mode and activate 'direct listening' mode, so you hear incoming audio and the screen flashes. Turn the trimmer to middle position, find the position where the screen just turns from dark blue to black and the screen stays that colour. Play back a slowly fading out sound into the Digitizer (an electronic bassdrum kick is good) and check the digi quality, especially the silent parts must be click and noise free. If there is noise that should not be there, move the trimpot away from the middle position (away from blue) just so far until it sounds good. If the screen turns white, go back to blue and start all over. Screen must always stay black on silence. 1BM2k13