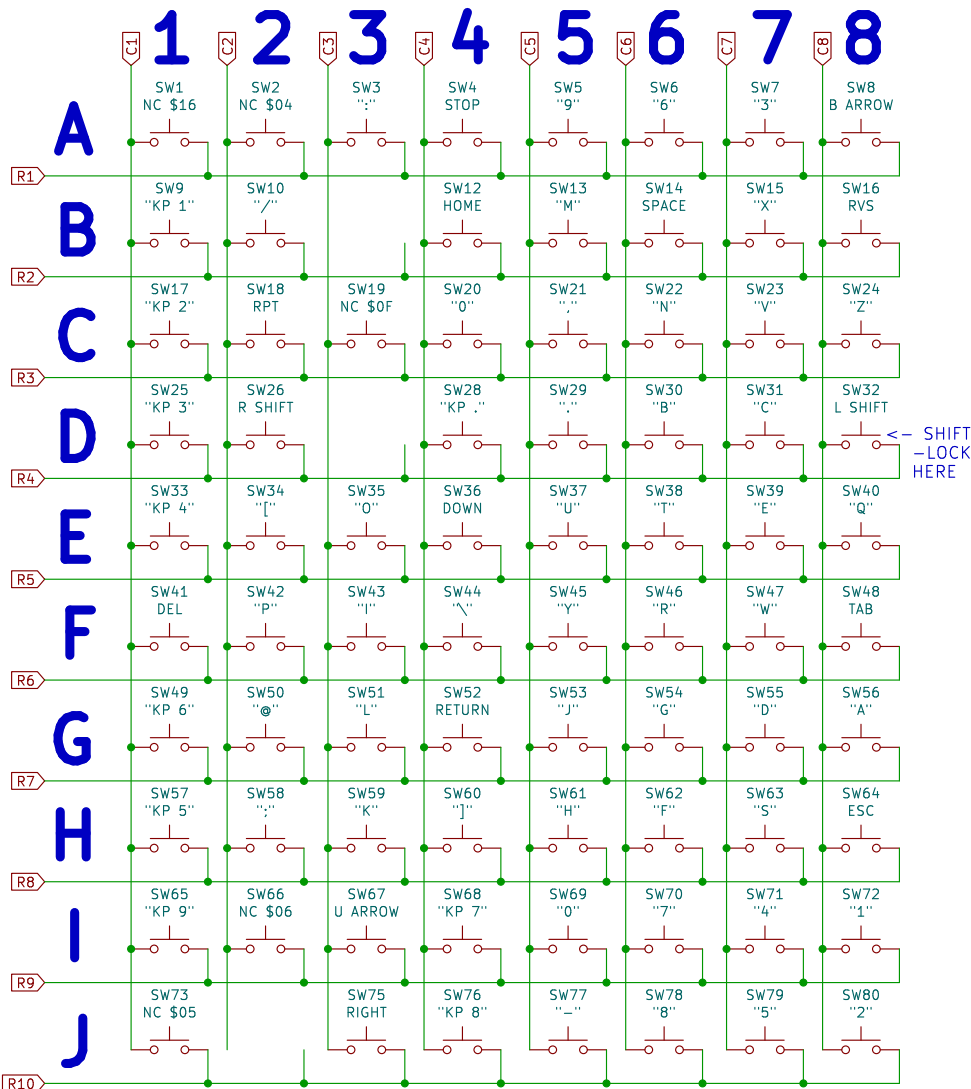




Switch numbering/row,col reference matches the matrix ordering in the ROM table. This appears to be reversed from the colour coded wires on the actual connector.

PET "B" Keyboard with mostly standard layout.

Notes:

- Original uses '9U' spacebar. This uses 6.5U
- Add 2 '1.25U' keys beside the spacebar to fill the space
- Make SHIFT-LOCK position selectable TEXT/GRAPHIC button
- Need to account for different MX switch height:

Total PET Height = 40mm: 10mm key protrusion, 7mm case thickness, 20mm Post, 3mm pcb
Total MX Height (based on OSI600D replica) = 25mm. So PCB has to mount approx 15mm higher

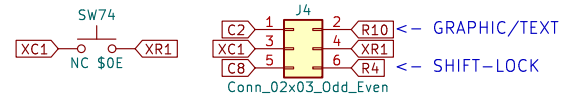
Changes:

Reduce pcb size by removing mounting cutouts and moving top connector (like N version)

CONFIGURATION JUMPERS

SHIFT-LOCK

SHIFTLOCK is not used that often, plus the Lockable MX switch is hard to get and expensive. If you have one it can be used. If not, you can re-assign it to be a GRAPHICS/TEXT key.



SWITCH11

This switch is not on the real keyboard, but is assigned PETSCII \$15 (Delete Line) in the matrix. We put it beside the SPACEBAR.



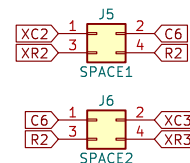
SWITCH27

This switch is not on the real keyboard, but is assigned PETSCII \$19 (Scroll Down) in the matrix. We put it beside the SPACEBAR.



SPACEBAR KEYS

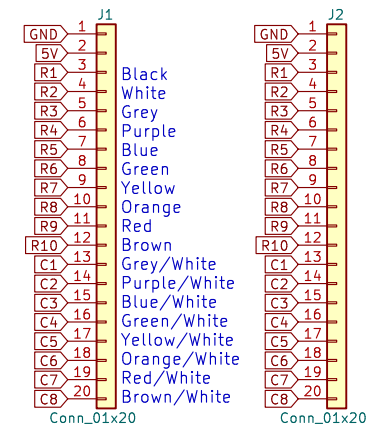
We can make SW11 and SW27 behave like SPACEBAR by closing these links.



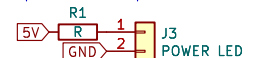
NOTE: Do NOT jumper both J3 and J11, or both J4 and J27!

CONNECTORS

Connectors to motherboard. The original keyboard has 18 wires for the 8x10 matrix.



NOTE: GND and +5V are for power LED option.



"NC" KEYS

Some positions in the matrix have no actual key. However, they have PETSCII codes and can be activated by pressing 3 keys at once due to "ghosting".

"B" HIDDEN FUNCTION

\$04-Ctrl-D
\$05-Ctrl-E
\$06-Ctrl-F
SELECTABLE->\$0E-Ctrl-N = Text/Graphics
\$0F-Ctrl-O = Set Top
ADDED->\$15-Ctrl-T = Delete Line
\$16-Ctrl-U = Erase Start
ADDED->\$19-Ctrl-Y = Scroll Down

"N" Equivalent

KP .
LEFT/RIGHT
UP/DOWN
CLR/HOME
NONE
R SHIFT
KP =
RETURN

The 3 chosen "NC" keys add functionality as well as adding keys that correspond to useful keys on the "N" keyboard, when playing games designed for 40 column "N" keyboard.

PET/CBM "B" KEYBOARD

B-V1-R2

Steve J. Gray

Sheet: /

File: petkb.kicad_sch

Title: PET/CBM "B" Keyboard using MX switches

Size: A4 Date: 2023-03-12

KiCad E.D.A. kicad 7.0.1

Rev: V1, R1

Id: 1/1

2023-03-12