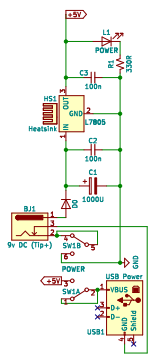


TEC-1G

Power Delivery



General Input/Output

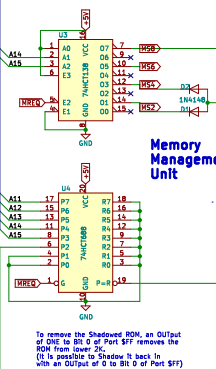


The TEC Deck

The new way to expand your TEC-1G with appropriate long-leaded headers, expansion boards can be slotted on top of each other. Just the original TEC-1G and now you have access to ALL the 280 pins as well as port and memory select lines. Memory expansion of 512K with ease. Input/output options for display.



With the Shadow ROM switch ON (on Reset or OUT FF.501), the lower 2K of the 16K ROM is mapped to the lowest 2K of the memory map. This is to provide backward compatibility to older TEC-1 machines and their manuals.

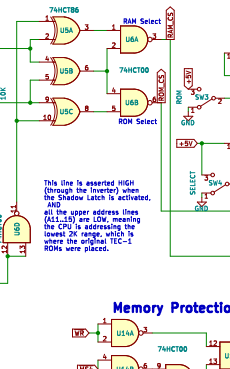


Memory Management Unit

To remove the Shadowed ROM, an output of ONE to BIT 0 of Port FFF removes the ROM from lower 2K. (It is possible to Shadow it back in with an output of 0 to bit 0 of Port FFF)

The ROM is selected (asserted LOW) if:
Any address in the lower 2K is requested (with Shadow ON)
OR
If an address is within the top 56K of 64K.

Otherwise:
The RAM is selected if the address falls within the lower half (32K) of the memory map.



Memory Protection

On Reset, all RAM is writeable. Under software control, sending BIT 2 high of Port FFF turns ON write protect of the RAM in the second 16K memory space. Sending to Port FFF a value with BIT 2 clear will remove write protection.

System Latch

This critical latch controls a lot of important functions, and will also be the centre of huge memory expansions to come.



System Input

Status lights showing you which output options are active.

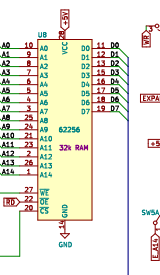


LCD 20 Characters x 4 Lines

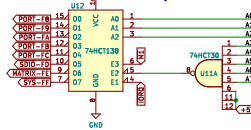


64K Memory

The lower 32K is all RAM in a single chip. The upper 32K of the memory map is reserved for the system ROM, although it is made up of up to a 64K EPROM to allow selection of multiple firmware, using a pair of switches.



I/O Decoders

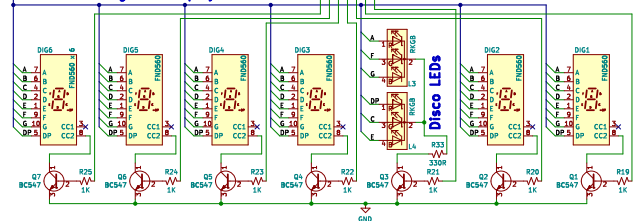


System Input

CONFIG: 1. Keyboard: 74C923 / Matrix Expansion LG / HI
CONFIG: 2. Matrix: Expansion LG / HI



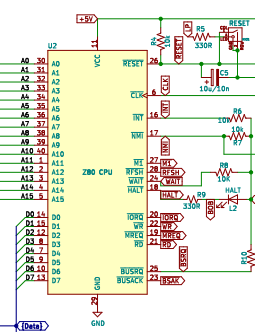
7 Segment Display Unit



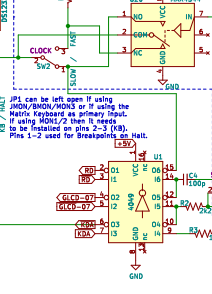
Disco LEDs



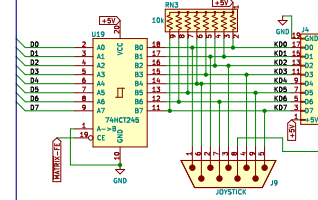
CPU & Clock



Expansion Connectors

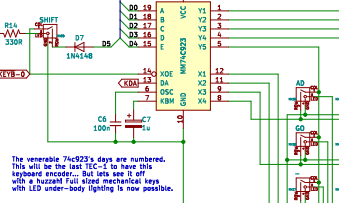


Matrix Keyboard & Joystick



The 74C923 is getting scarce. This new keyboard interface is the stepping stone away from reliance on the keyboard encoder that the original TEC-1G was designed around. The Matrix interface allows for full QWERTY keyboards to be connected to the TEC-1G.

HexPad Encoder



The venerable 74C923's days are numbered. This will be the last TEC-1G to have the keyboard encoder. But let's see it off with a flourish! Full LED under-body lighting is now possible.

These resistor packs are only required

If you install General Low Profile mechanical keys along with the optional Fujitsu LEDs. The Fujitsu also accept 12mm tactile keys.