Alphatronic P2 - only with the MOS produce a cp/m disk via V24

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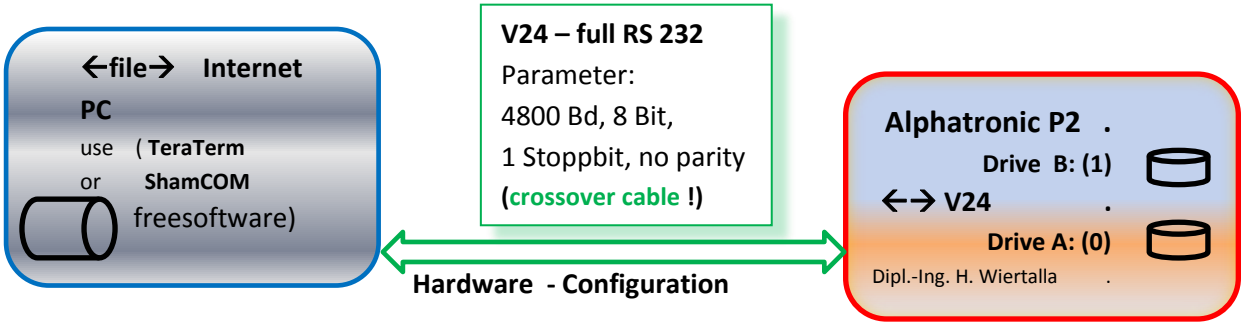
Prerequisite to NOTHING to create a CP/M diskette. **(update 10.oct.2016) Added: cpm43t7.bin**
CODE1_2 ● COLD FORMATTER ● create CP/M ● Filetransfer YMODEM
Do you have a technically **working Alphatronic P2** - or a similar machine - and some free **recordable Floppy-disks** (160kB, DD or better, 5 ¼"), then you can CP/M system disks and produce some key programs with few details even easy! **I will help you to help yourself!**

HARDWARE
To prepare, you need a **crossover cable** from the V24 Alphatronic P2 (25 pol.) to a PC (eg WIN) and Internet access to this PC. About my website important: For step A) or B) a sufficient Alphatronic with 48kB memory expansion.
Later, at the start of the newly created TPA 100h a CP/M (**cpm2p7t.bin)** diskette required 64kB memory expansion.
Added yet, I create another new 48kB memory variant for cp/m and a lot of programs (TPA 4300h!) is cpm43t7.bin available!

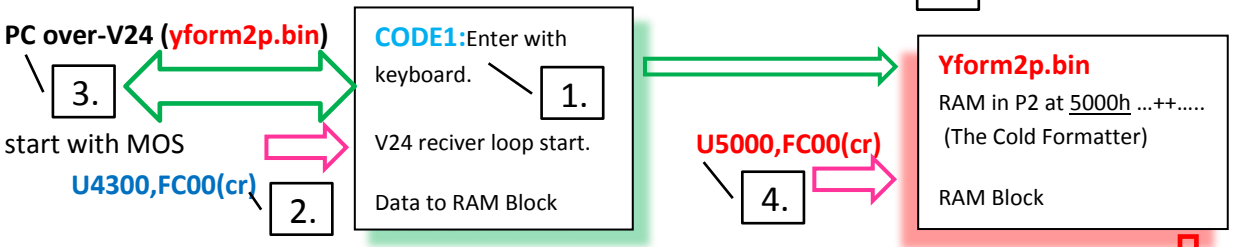
http://www.waltroper-aufbruch.de/Archiv/AlphatronicP2.php
get yourself Alphatronic P2 and MOS **documents (PDF**) and some binary files.



Software workshop:

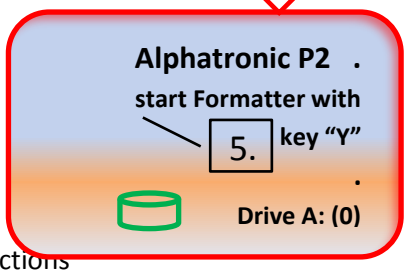
You have no CP/M disk, or **can not write to their floppy** thing. I will help you to help yourself! Show to my WEB.

A.) Formatting a disk with a COLD Formatter. MOS **CODE1** you keys in the RAM. If the Code1 was first started with the MOS, send the Formatter (**yform2p.bin**) per **TeraTerm** (read user manual-binmode!).
Then start the **CODE 1** with the MOS **U43000,FC00** (**cr**= Return Key). The eternal loop receives each character of the V24 and puts the character from 5000h and following in the memory.
These start with the "TeraTerm", send file in **binary mode yform2p.bin** the file. If everything is received (PC display), you can only cancel the Alphatronic P2 button HARD RESET. (steps) X.



Is everything in RAM, then you (not read-only by floppy) create a writable disc in the lower drive (0 or A:). The Formatter starts with .**U5000, FC00 (cr)**.
The process run automatically with the formatting and proofreading.
There are only two short messages. **ok - then you win**,
otherwise **Error** - is what the disc or the device is not in order. **Repeate!**

(up)



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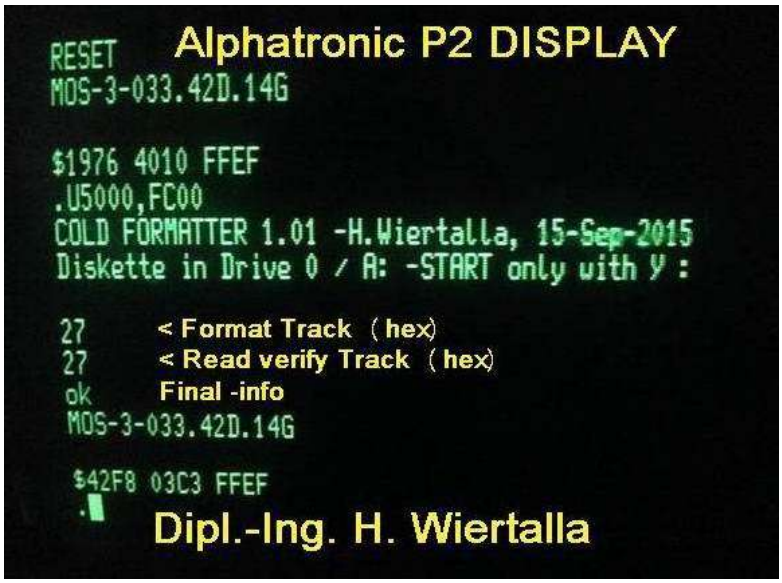
Then **any more new disks are formatted**. These hard reset key
and restart with the MOS at **U5000,FC00** (cr) or **G5000 (cr).** (up)



If they have permanet format mistake "Error / FEHL" , they study workshop on my website. Check your Hardware and/or the Floppy disc drive (read- writeheads).

END section FORMATTER (up)

Here the **handling** of the input CODE1 and / or CODE2 **via MOS.**

The Substitute **.S**hhhhcr **MOS comma**nd it is begun. Of the **.** (Point comes from MOS) So **S** and following a hhhh: = HEXE input (0..9 or A..F), **cr**: = is the Return key. The displayed memory content can now be modified with a hex value. This is done with the **BLANK** button, the next memory cell is displayed, for example, be edited as before. **Case A)** is the value currently displayed and is to be no change, is incremented with **BLANK** (example below here _). **Case B**), it is also - a cell to **go back (minus key**). **Return** key ends At the conclusion is with cr. (see other description in MOS). Next the CODE-area is to get as an image from the Web Site (dowload show this)!
Before we sweep the input area with Fill: (**red** are the reactions eg **MOS**, blue input with key's)
.F4300,4400,0cr
Here we go: To try and the storage area to occupy on eg with 55h.
(Only the left column with **.S** generated - **right column only for understanding**)

.S4300cr CODE1	**ADR : CODE**	**Symbolic instruction**		(up)
4300:00-01_ 00-00_ 00-90_	**4300: 01 00 90**	**LXI**	**B,9000h**	**;long**
4303:00-21_ 00-00_ 00-50_	**4303: 21 00 50**	**LXI**	**H,5000h**	**;start address**
4306:00-1E_ 00-55_ 00-73_ eg….	**4306: 1E 55**	**MVI**	**E,55h**	**;Konstante**
	4308: 73	**MOV**	**M,E**	**;move to memory**
only CODE (HEX)	**4309: 23**	**INX**	**H**	**;address++**
input.	**430A: 0B**	**DCX**	**B**	**;long--**
	430B: 78	**MOV**	**A,B**	
	430C: B1	**ORA**	**C**	**;is .not zero. BC**
	430D: C2 08 43	**JNZ**	**4308h**	**;not finish**

```
4310: 21 00 50      LXI     H,5000h     ;addaress start !!!
4313: C3 50 43      JMP     4350h       ;jump to  V24 init and loop
```

.S4350cr CODE-1 the V24 init and loop

(reciver loop V24) (up)

```
4350:00-3E_ 00-91_ 00-D3_   4350: 3E 91     MVI   A,91h  ;Dummy
4353:00-05_ usw.....        4352: D3 05     OUT   5      ;Port V24 command
.                           4354: 3e 40     MVI   A,40h  ;Reset
.                           4356: D3 05     OUT   5
.                           4358: 3E 4E     MVI   A,4Eh  ;Mod-cmd
                            435A: D3 05     OUT   5
.                           435C: 3E 37     MVI   A,37h  ;Mod-line
.                           435E: D3 05     OUT   5
.                           4360: DB 05     IN    5      ;read STATUS Port
.                           4362: E5 02     ANI   2      ;RxRdy for character
.                           4364: CA 60 43  JZ    4360h  ;loop
.                           4366: DB 04     IN    4      ;get data from Port
.                           4368 77         MOV   M,A    ;data to mem
.                           436A: 23        INX   H      ;position++
.                           436B: C3 60 43  JMP   4360h  ;loop
. end cr in MOS -
```

(up)

.S4370cr CODE-2

(enter *reciver block* to Disk write mem block)

```
4370:00-2E_ 00-10_ 00-3E_   4370: 2E 10     MVI   L,10h  ;LW 1 = driver upper
4373:00-84_ 00-11_ 00-01_   4372: 3E 84     MVI   A,84h  ;Positions-CODE
4376:00-00_ 00-CD_ 00-14_   4374: 11 01 00  LXI   D,0100h ;RD sec=1,RE Track=0
....                        4377: CD 14 08  CALL  814h   ;disc driver
.                           437A: DA 98 43  JC    4398h  ;error jump
.                           437D: 2E 10     MVI   L,10h  ;LW 1=upper
.                           437F: 3E 83     MVI   A,83h  ;write code
.                           4381: 01 00 50  LXI   D,5000h    ;memory address.
.                           4384: 11 00 81  LXI   B,8100h    ;long BLOCK
.                           4387: CD 14 08  CALL  814h   ;disc driver
.                           438A: DA 98 43  JC    4398h  ;error jump
.                           438D: 21 B8 43  LXI   H,43B8h        ;ok –Text
.                           4390: CD 5E 00  CALL  5Eh    ;Txt output
.                           4393 : C3 55 00 JMP   55h    ;jump to MOS ok

.                           4398: 21 B0 43  LXI   h,43B0h        ;error –text
.                           439B: CD 5E 00  CALL  5Eh            ;text output
.                           439E: C3 55 00  JMP   55h            ;jump to MOS
```

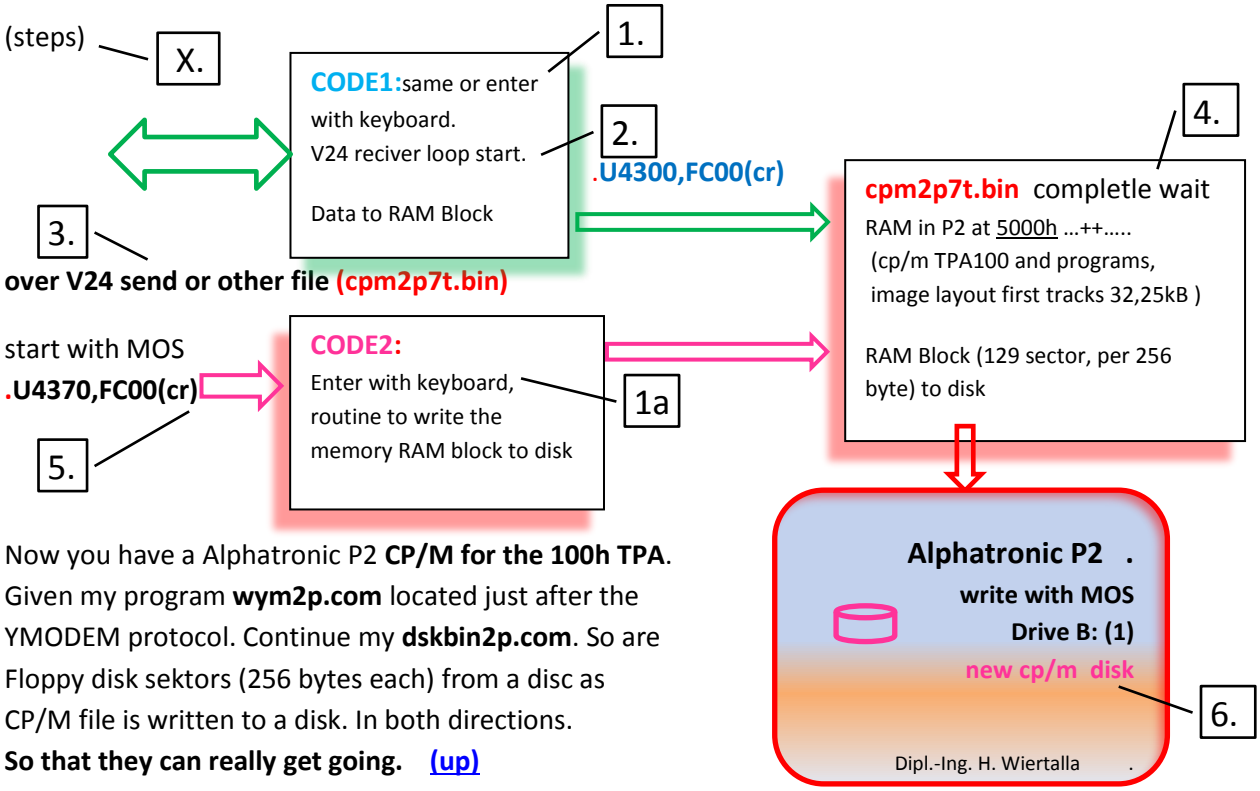
. (up)

.

43B0: 06 0D 0A 46 45 48 4C DB 06,13,10,"FEHL" ;for error

43B8: 04 0D 0A 6F 6B DB 04,13,10,"ok" ;04_long ok

B.) Preparing a CP/M diskette and equal to agree useful programs from me. The identical **CODE1** will now be expanded to include the small **CODE2** using the keyboard. The **CODE2** later with two floppy disk driver calling a block 129 setoren (per 256 byte) to a floppy disk drive in 1 or B: but here written. (up)

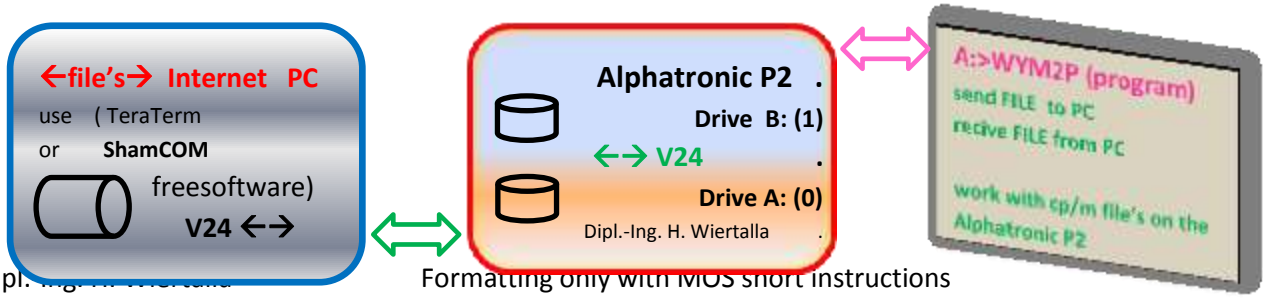


Now you have a Alphatronic P2 **CP/M for the 100h TPA**. Given my program **wym2p.com** located just after the YMODEM protocol. Continue my **dskbin2p.com**. So are Floppy disk sektors (256 bytes each) from a disc as CP/M file is written to a disk. In both directions.
So that they can really get going. (up)

If you exchange the cpm2p7t.bin to cpm43t7.bin, then you create a CP / M for a TPA 4300h, so put them memory configuration of 48 kB RAM, with wym43.com. A zip –file for cp/m 4300h programs are ready.

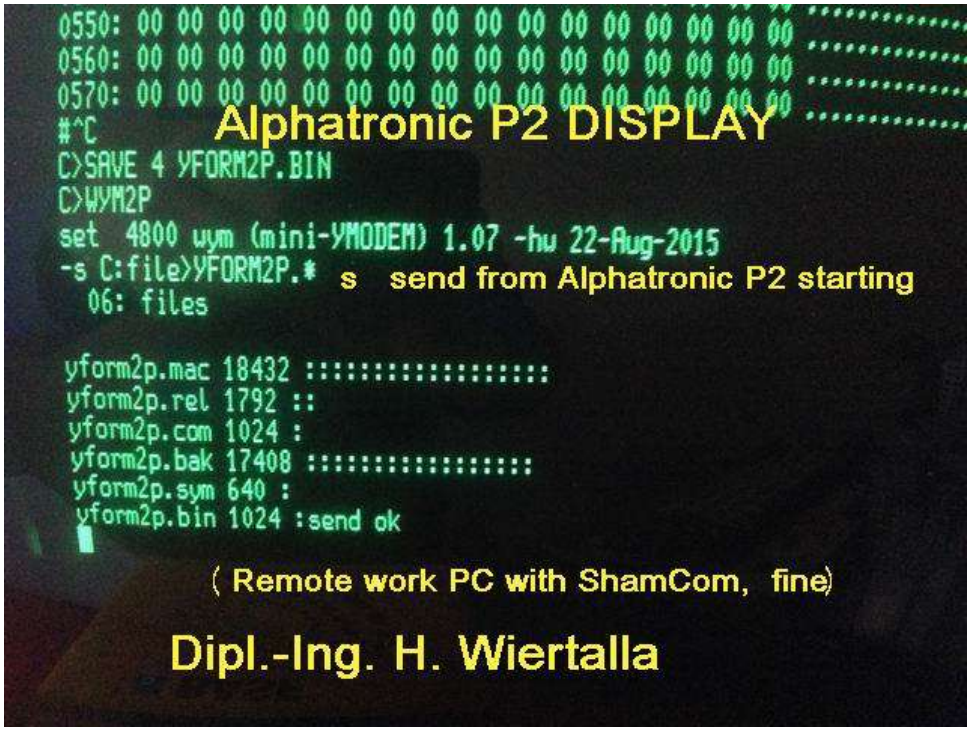
C.) Filetransfer with the YMODEM protocol (**wym2p.com** on the cp/m disk TPA 100h)

If you have created a **new cp/m Alphatronic P2 disk**, use my wym2p.com (Ymodem protocol). In order to work with the identical V24 crossover cable as before, with the PC (batch transmission only from the Alphatronic P2) (WINDOW 7 or..) program TeraTerm or **better ShamCom**. For this they get a guide to **wym2p.com** program from my website.
The most important basic functions of the file transfer from the PC to Alphatronic P2 and in the other direction. Please study my instructions. (up)



Connected to the world

Now I have helped you - to help himself.



Much success of Alphatronic P2 owners and similar systems. **(up)**

It would be nice if I would sometimes hear of your successes.
Who wants me via e-mail to find me, find me by search engines. **(up)**

http://www.waltroper-aufbruch.de/Archiv/AlphatronicP2.php