

Brief description for starting the Alphatronic P2 with the MOS *INSIDE* • Alphatronic P2, KISS, DS2069 - Workshop

Possible errors with [minimal building cards](#) – for tests. (**update 01-Jun-2016**)

Hello owner;

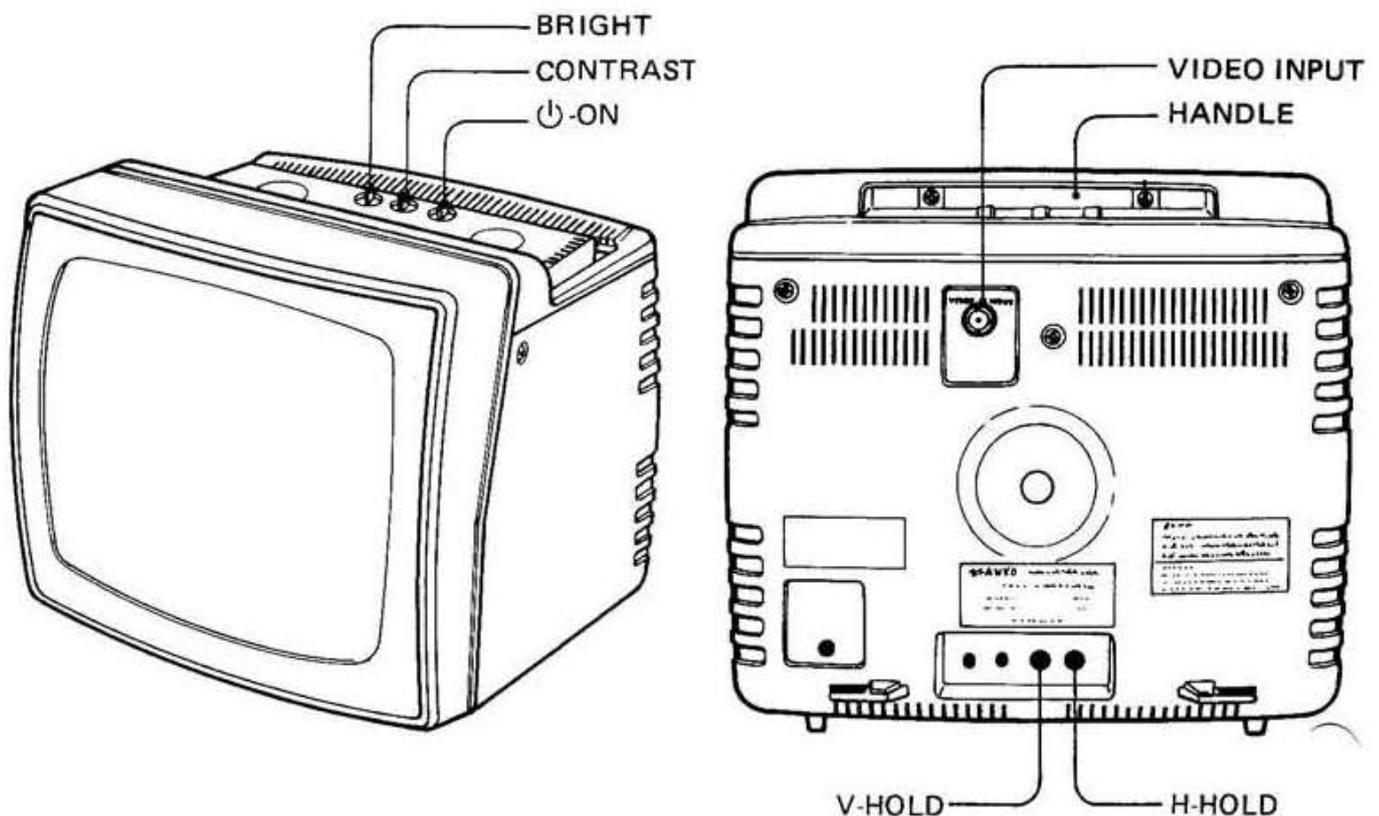
No reactions with the turning “**power on**” of the Alphatronic P2
(or similar machines) - **what is to be checked!** [Compact Inside here.](#)

1. **220 volts AC** - fan should run
2. Display connect with P2 over the **Koaxkabel (VIDEO Input)**, net 220 volts AC control

(red Lamp ● surely below on the screen obviously)

A pdf “[DISPLAY_P2_Manual_elekt_Schematic_hw_scann.pdf](#)” is to find over my [Web-Site](#). ([top](#))

Controls



⏻-ON (POWER SWITCH)

Power can be clicked on by turning the switch knob clockwise.

POWER INDICATOR

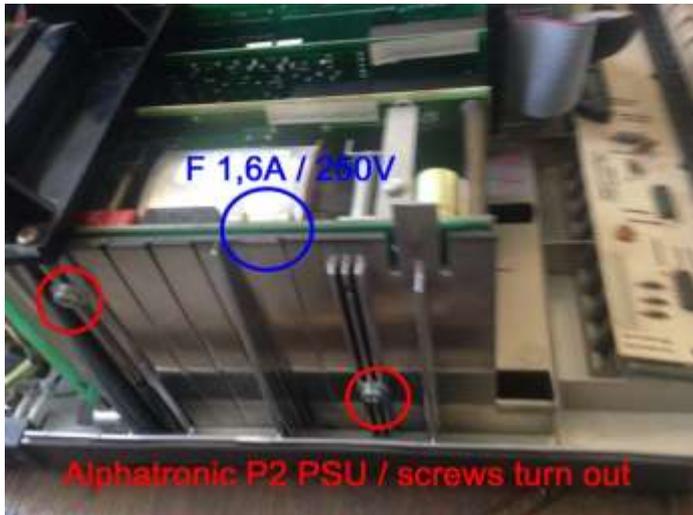
Red indicator lamp will light up when power switch is turned on.

Alphatronic P2 - POWER ON check and more

3. All fuse examine in the power supply units (PSU) [\(top\)](#)

(Moduls +5V and +12V with -12 Volt),

Alphatronic P2 case open and take off net plug (220 volts AC) before. Two cross-screws out turn. PSU Module take out.



The fine protections (FUSE) examine. In the PSU are **three** fine fuse (in my machine).

1.6 A protection is to be seen on top immediately. Only in the other edge are **0.1A** and **6.3A** fine protections (fuse). All FUSE type - fast quickly.

4. The BUS VOLTS +5 volts, +12 volts and -12 volts must exist !

Care with measure of the DC at the back of the [motherboard](#).

See the "[Alphatronic_P2_PSU_PIN-layout.pdf](#)" to my [WEB-Site](#) for more.

[\(top\)](#)

5. MOS Startsequenz:

RESET

MOS xxx ..



Bell



Now by cpu it is explained – normaly the hardware is ok.
show on the Display first
Memory check (wait..a short time)
Standard more information from MOS

you **must hear a short beep** (from keyboardcard !)

Point is ready for MOS command ( Cursor)

6. Insert a 5 ¼" Diskett in the lower Driver with a booted SOFTWARE.

Normal input keys after the . Point **B(cr)** (B = Batch command, (cr) is RETURN –key, **must typed**) !

Or you download the MOS Manual to read it. [\(top\)](#)

<http://www.waltroper-aufbruch.de/pdf/MOS%20SKS%20Programmbeschreibung.pdf>

Alphatronic P2 - POWER ON check and more

See the "[Alphatronic_P2_PSU_PIN-layout.pdf](#)" to my [WEB-Site](#) for more.

Show and test the DC BUS PIN layout – for 96-PIN controller cards -and see this picture.

SKS GmbH		STECKERBELEGUNGSLISTE		STECKER : A
PIN	Bezeichnung	Diagramm	Erläuterungen	Blatt Nr.
01	+ 5 V			
02	0 V			
03	+ 12 V			
04	0 V			
05	- 12 V			
06	0 V			
07				
08				
09	ADR 0			
10	ADR 1			
11	ADR 2			
12				

If three DC voltages are to be seen OK, however, no start sequence on the screen, the boards are other to examine like here.

If they have problems with the Floppydisks, but the disk drives work (turn and selected), then I recommend the **HELPER – AREA** – (see my [WEB Site](#)).

A COLD Formatter / and or check the floppydiscs read/write heads and more.

Or check http://www.waltroper-aufbruch.de/pdf/HELL_Floppy_BASF6106_maintenance.pdf (top)

Now I enjoy spending some tests for the required initial start – so only with the MOS.

Possible errors with minimal building **cards** – for tests.

In the **MOS Manual (pdf - page 22)**, the flow is specified.

After switching “power ON” - (cold start) starts the CPU at the address 0000h.

<http://www.waltroper-aufbruch.de/pdf/MOS%20SKS%20Programmbeschreibung.pdf>

Alphatronic P2 - POWER ON check and more

1. Initialization stack pointer (on CPU RAM 1kb of 01800h to 1BFFh) - hence the CPU must exist, is actually clear !! [\(top\)](#)

2a. Initialize control screen (the access is made as a memory-map to controller-register) Check first the Display connect to P2 over the **Koaxkabel**, power control (**red LED surely below on the screen** obviously)! More possibly points with the regulators - on top on the screen - contrast or bright adjust.

So the registers CRT from 5027 and the image memory. The range is from 3000h to 3FFFh. It is a pdf file (website / Dropbox **example BC10 SKS document-pdf**) with programming parameters available. I mean that the card must be plugged in, because as controller registers are read. I test that yet. Is the card no plugged in, **the display are dark**, und no reactions from the keyboard. The MOS starting no. I have it tested!

2b. Initialization keyboard - I mean, the card has to be plugged in. [\(top\)](#)
Without the card is this:



RESET display and normal values on the screen. **Clear Bell** is missing.
Now running the keyboard is polled, while we continually evaluated an incorrect character as a completed and displayed with a new line.

2c. Floppy initialization reset and selekt Drive 0 - that's down.

It must be plugged in **no floppy card** !!

Result: RESET and normal display. If, for example, B (cr) keyed -> error and warm start (as the display).

3. Default of MOS - RAM areas.

4. Memory End Test (only from 4000h to 0FFFFh) depending 0100h steps.

5. PROM TEST [\(top\)](#)

6. RAM Test at power

7. root causes / normal or more error output.

On MOS- pdf - page 22 are more comprehensive.

Look at times your [memory card](#). Or do you have only one memory card. (my 2 memory cards show in in my WEB-Site).

There are delivered with only **48k memory** Alphatronics.

In addition I have also a **48kb cp/m for 4300h TPA** and actually very many programs. (M80, L80, F80, ED, STAT, PIP, .. and **my WYM43.COM – YMODEM** protocol for file transfer.... later if the Alphatronic Px is ok.)

I hope that I could help. See also the [other PDFs](#) here.
Write me how to proceed with them.

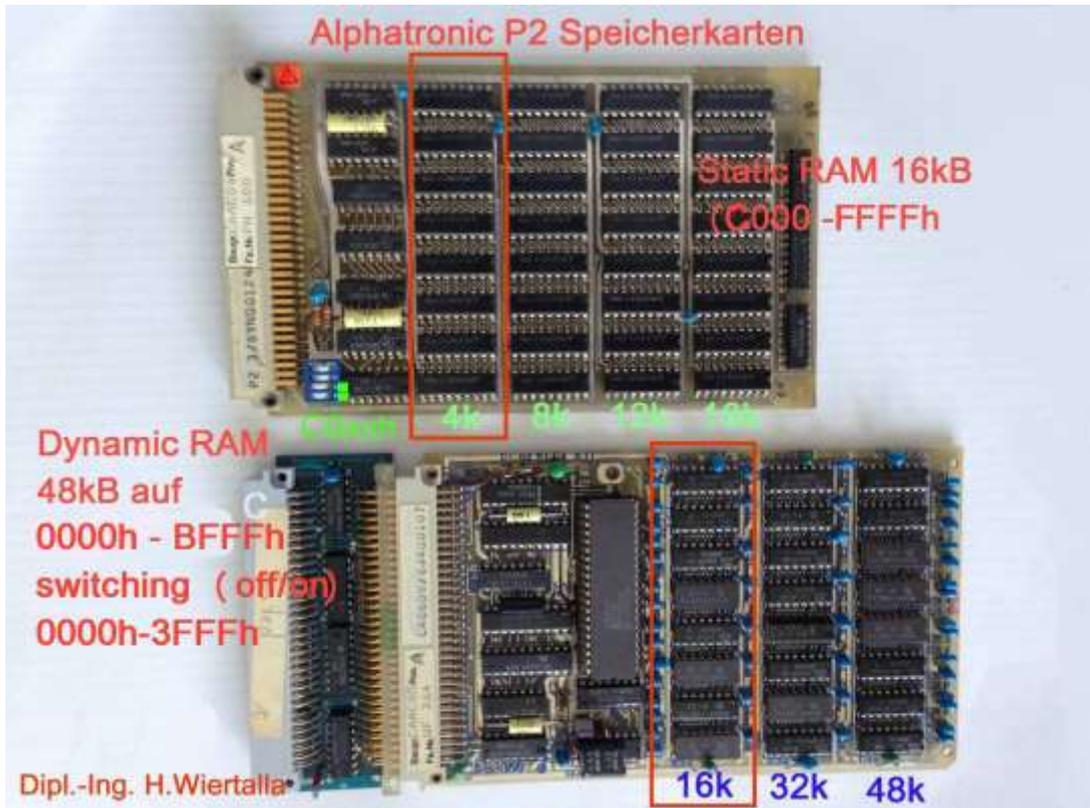
So far a lot of success and best wishes [\(top\)](#)

Dipl.-Ing. Helmut Wiertalla

Alphatronic P2 - POWER ON check and more

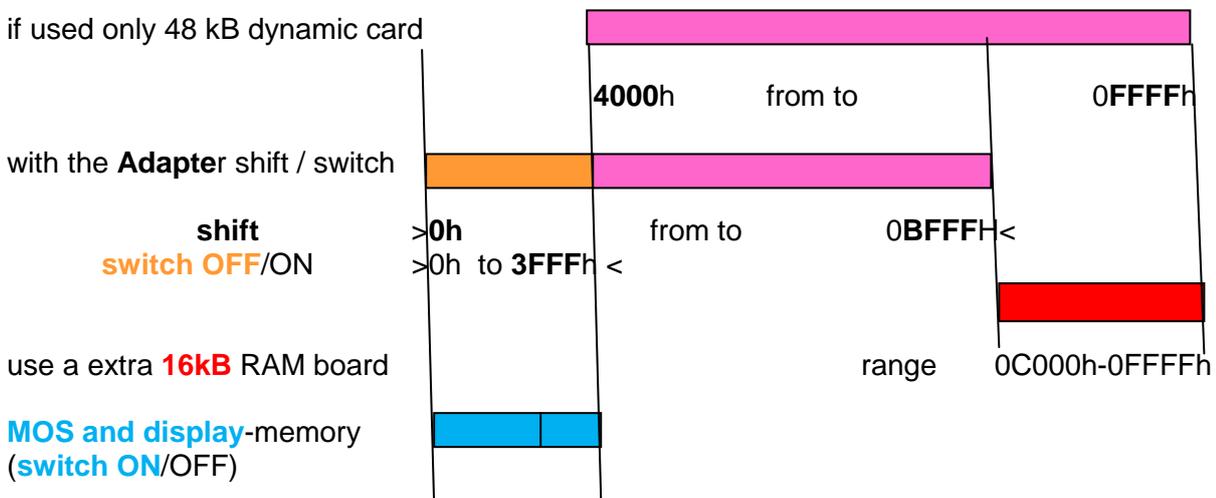
<http://www.waltroper-aufbruch.de/AlphatronicP2.php>

Check if you find a newer Version of **this** or [other pdf's/ programs](#) from my WEB - Site. [\(top\)](#)



If you used **only the 48kB** dynamic memory card, then is the ADDRESS 4000h to FFFFh. Only for 4300H TPA cp/m, or other software for running 4000h between FFFFh !!! [\(top\)](#)

if used only 48 kB dynamic card



After RESET the MOS and the display memory is aktiv = **ON**. Used with the Adapter the first 16 kB from the dynamic memory is deaktiv = **OFF**. [\(top\)](#)

Alphatronic P2 - POWER ON check and more



ADAPTER: Addresses access 0000h-BFFFh shift range /
hide selection 0000h-3FFFh (off/on) software switching



Here is the Base-information of the **Inside** • Alphatronic P2 and more. Compact documents here:

Booten: http://www.waltroper-aufbruch.de/pdf/Booten_Alphatronic_P2_cpm.pdf
MOS: <http://www.waltroper-aufbruch.de/pdf/MOS%20SKS%20Programmbeschreibung.pdf>
Floppy: http://www.waltroper-aufbruch.de/pdf/HELL_Floppy_BASF6106_maintenance.pdf
Display: http://www.waltroper-aufbruch.de/pdf/DISPLAY_P2_Manual_elekt_Schematic_hw_scann.pdf
Back plane: [Alphatronic_P2_PSU_PIN-layout.pdf](http://www.waltroper-aufbruch.de/pdf/Alphatronic_P2_PSU_PIN-layout.pdf) (Thanks and scanning from Piero, Italy)
Self PDF: http://www.waltroper-aufbruch.de/pdf/MEMO_P2_start_MOS.pdf
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Write me how to proceed with them.
So far a lot of success and best wishes [\(top\)](#)
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