

Manitar D. L. Cattings

## Monitor B+ Settings

# How to Read / Test & Set Your Arcade Monitor B+

(Serious risk of injury or loss of life may occur so please use these instructions only after obtaining the proper knowledge and tools)

Remember that not all monitor chassis have an adjustable B+ but you still need to check it to make sure your regulator is working properly. ALWAYS check and if applicable make sure to adjust your B+ if needed after installing a cap kit or working on your arcade monitor chassis.

Always check/set B+ FIRST before making any other adjustments to your chassis. B+ is measured with meter set to Volts DC.

Please contact us if you see an error or if you have other B+ directions you would like us to post here.

**Sanyo 20 EZ** – Set to 108vdc – Check with black meter lead to chassis ground and red lead on +BC lug on right rear of board (standing behind looking at board). Adjust B+ at VR601.

Wells gardner K4600 and K4700 – Set to 127vdc – Check with black meter lead on chassis ground and red lead on blue wire of the TR502. Adjust B+ at VR501.



Wells gardner K4900 and K4800 – Read at 130vdc – Check with black meter lead on chassis ground and red meter lead on R503 (NOTE: R503 use lead furthest from the tube on this resistor) (NOTE: R503 is the large ceramic resistor mounted directly on the PCB and not the one on the side of the chassis frame) or red meter lead to TP91 in the back center of the board closest to the tube.

**Neotec 2515C** – Set to 125vdc – Test the b+ with black meter lead on chassis ground and red lead on the connection point of R117/R424 and adjust at R112.

Sanyo 14 AZW – Set to 105vdc – Check with black meter lead to chassis ground and red meter lead on TP91 which is one end of the largest cement resistor on the PCB (R609 20W 180 ohm resistor). (This is probably the same for Sanyo 14 AZZ but I didn't verify). Adjust B+ at VR601.

**Sanyo 20Z2AW** – Set to 108vdc – First set brightness control VR351 on control PCB to maximum brightness (clockwise all the way) then connect red meter lead to TP91 and black meter lead on chassis ground and adjust B+ at VR601 to 108vdc. When done return brightness back to its original position.

**Sampo KGR1901, 1902 and 1903** – Set to 110vdc – Adjust B+ at R707. Read B+ as follows: red meter lead on R612 and black meter lead on chassis ground.

Matsushita TM-202G – Set to 123vdc – Set bright control R344 on video amplifier pcb to maximum brightness, then turn power off on monitor. With a meter set to DC volts put the red meter lead on test point D91 and black meter lead on chassis ground, then turn monitor power on and adjust B+ voltage with R812 to 123VDC and when done set bright control R344 back to normal setting.

**Matsushita 14"** – Set to 115vdc – Test B+ with red meter lead on the emitter of Q801 and black meter lead on chassis ground and adjust potentiometer on monitor main PCB labeled "B+ ADJUSTMENT" and set it to 115vdc.

Nanao MS-2934 & MS-2932 – Set to 110vdc – Power on the monitor with no video signal than check with black meter lead on chassis ground and red meter lead on TP901. Set B+ to 110vdc using trimmer pot at VR951.

Wells gardner K7000 – Read at 123vdc or 130vdc – (123vdc or 130vdc depending on which regulator is installed in chassis)(most 19" chassis have 123vdc and most 25" chassis have 130vdc regulators) Check with black meter lead on chassis ground and red meter lead on the blue wire of the large white ceramic resistor that is mounted on the side of the large aluminum chassis frame.

Wells Gardner K7000 HV Shutdown Pot Adjustment Procedure – If you have to replace the High Voltage Shutdown trimmer Potentiometer at VR8 then follow the instructions. Use your meter to test voltage at the cathode of D12. Place black meter lead on chassis ground and red meter lead on the Cathode of D12 and adjust VR8 to a reading of 9.8v.

Nanao MS8-26SU – To check B+ Monitor powered off, disconnect your video signal from the game PCB. Power on the monitor with no video signal, put your red meter lead on TP1, and black meter lead on TP2(chassis ground), you should be getting +92DC volts. Both test points are just in front of the 2A fuse, look for three little posts in a line(TP1, TP2, TP3). Due to location, this feat is easier to do, using alligator clips connected to your test leads.

**Wells Gardner K7203** – Set to 121vdc – Test the b+ with black meter lead on chassis ground and red lead on TP1 and adjust at VR001.

Wells Gardner K7500 / K7400 / U2000 / U5000 – Set to 117vdc – Test the b+ with black meter lead on chassis ground and red lead on TP202 and adjust at VR101.

**Sharp XM-2001N & XM-1801N** – Set to 110vdc – First set brightness control R495 on control PCB to maximum brightness (clockwise all the way) then connect red meter lead to TP91 and black meter lead on chassis ground and adjust B+ at R707 to 110vdc. When done return brightness back to its original position.

Hantarex MTC9000 / MTC9110 – Read at 130vdc – Check with black meter lead on chassis ground and red meter lead on TP10 (TP10 is the end of resistor R72 near the center of the chassis).

Hantarex Polo – Set to 138vdc – Test the b+ with black meter lead on chassis ground and red meter lead on TP6 which is at the end of P112 and adjust at RV101 which is labeled V. Adj. and is located under the metal cage. There is an access hole with a sticker over it in the metal cage so you can adjust the B+ through that hole with a non-conductive tool.

Makvision 2425, 2427 & 2432 (25", 27" & 32" CGA / EGA) – Check with black meter lead on metal frame / chassis CRT ground and red meter lead on the cathode of D501. Adjust B+ at VR501. Set B+ voltage to 106vdc for 25" monitors, Set B+ voltage to 110vdc for 27" monitors and Set B+ voltage to 129vdc for 32" monitors.

**Neotec NT-2700, NT-2701 & NT-2702 (Li-Chin Version)** – Test the b+ with black meter lead on chassis ground and red lead on R117/R424 and adjust at R112. **NT2700** set B+ to 125vdc and **NT2701** set B+ to 113.5vdc and **NT2702** set B+ to 127.5vdc.

**Neotec NT-2700, NT-2701 & NT-2702 (Full Family Version)** – Test the b+ with black meter lead on chassis ground and red lead on connection point of D106 and adjust at R111 to set B+ at 100vdc.

Amplifone Raster 19" & 25" – Set to 120vdc – Set brightness control R31 on neck pcb to maximum brightness, then turn power off on monitor. With a meter set to DC volts put the red (Positive) meter lead on the +120v test point (End of R13 closest to Q5 & CR12) and put the black (Negative) meter lead on the +120v Ground test point on the Deflection PCB (End of R27 closest to the edge of the PCB), then turn monitor power on and adjust B+ voltage with R26 to 120VDC and when done set bright control R31 back to normal setting. (See Figure 5.2 in Manual for locations).

Rodotron 666 – Test the b+ with black meter lead on chassis ground and red meter lead on the connection of R33/C23 and adjust VR1 for 15K B+ setting, adjust VR2 for 24K B+ setting and adjust VR3 for 31K B+ setting. SEE CHART FOR B+ SETTINGS PER MODELS AND RESOLUTIONS. (Model 666A-29 15K set to 75.5vdc, 24K set to 114vdc and 31K set to 140vdc). (Model 666B-29 15K set to 55vdc, 24K set to 89vdc and 31K set to 100vdc). (Model 666C-29 15K set to 60vdc, 24K set to 88vdc and 31K set to 103vdc). (Model 666A-29PDF 15K set to 73.9vdc, 24K set to 113.1vdc and 31K set to 140.1vdc). (Model 666A-29PSF 15K set to 74vdc, 24K set to 112vdc and 31K set to 133vdc).

Hantarex MTC900 (DB1) – Set to 126vdc – Set the Brightness (RV11) and Contrast (RV10) trimmer controls to their minimum setting (turn counter clockwise all the way). Test the B+ with the black meter lead on chassis ground and the red meter lead on TP16 and adjust at RV12 to 126vdc. When done adjusting the power supply B+ voltage then return the RV10 and RV11 trimmer controls to their appropriate settings.

Hantarex MTC900E – Set to 115vdc – Adjust / Measure the B+ with no video signal connected. Set the G2 trimmer control counter clockwise to its minimum setting. Test the B+ with the black meter lead on chassis ground and the red meter lead on SP20 and adjust at RV12 to 115vdc. When done adjusting the power supply B+ voltage then return the G2 trimmer control to its appropriate setting.

**Disco (Atari) DMC-2090DT-2A / DMC-2090DT-2B / DMC-2090DT-2C** – Set to 115vdc – First set Screen Control VR707 for maximum brightness and then set Bright control VR201 to mid-range. With power off then connect red meter lead to test point A1 and black meter lead on chassis ground and adjust B+ at VR001 to 115vdc. When done return Screen control VR707 & Bright

Control VR201 back to their normal positions.

Wells Gardner K7200 / K7201 – Set to 126vdc for 19" and Set to 121vdc for 13" – Test the b+ with black meter lead on chassis ground and red lead on the connection point of R101/L002 and adjust at VR001. (There are several locations to test the B+ at on this chassis besides the one listed above so you can use any of them to put the red meter lead on. Use whichever is easiest to access. R89 or R97 (the place where the current comes in) of the load resistors or connector P5, or P202, or J202 at position 3.).

Commodore 1084P / 1084P-S - Set to 125vdc - With the unit powered off, set the Volume Control (R316), Contrast Control (R585), and the Brightness Control (R589) to its minimum position. Preset R114 to its mechanical center. Connect a voltmeter across C494 with the black meter lead on the negative lead and the red meter lead to the positive lead and then turn on the power to the unit. Adjust R114 for a reading of 125VDC on the meter.

Vision Pro MTG-1901CN - Read at 123vdc - Check with black meter lead on chassis ground and red meter lead on the Cathode of D810 and it should be 123vdc. This chassis uses a regulator so its not adjustable.

Kagi 19" & 13" KB240162 - Set to 110vdc - Check with black meter lead on chassis ground and red lead on Pin 2 (+B1) of connector at CN-A on the Power PCB (KB240164). Adjust B+ at VR901.











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  - JST Connectors
    - JST EH 2.5mm / .098 Connectors
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