

Viewsonic VG1930wm disassembly and capacitor replacement

This VG1930wm was given to me because it did not power on. The blue power indicator turned on, but the monitor did not show anything.

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INTRODUCTION

This monitor did not come on. The blue power light turned on, but no other function worked. I assumed that it was the power board that had some component that failed.



TOOLS:

- Desoldering Braid (1)
- Flathead Screwdriver (1)
- Digital Multimeter (1)
- Phillips #1 Screwdriver (1)
- iFixit Opening Tools (1)
- Solder (1)
- Soldering Iron (1)



PARTS:

C216 470uF 25V C213 680uF 25V C214
680uF 25V C212 680uF 25V C211 680uF
25V C215 470uF 25V C217 220uF 25V
C12 220uF 25V C11 220uF 25V (1)

Step 1 — Viewsonic VG1930wm disassembly and capacitor replacement







- Here is the monitor as given to me. Not a great monitor, but the price was right.
- First to pop off the cover on the stand. Use a flat tip screwdriver, or similar tool, to pop it off
- There are tabs where the tool can be inserted and with small force the cover will pop off







- With the cover removed, the screws that hold the stand to the monitor become clearly visible.
- Remove the four Phillips screws.
- Remove the stand.







- Remove the two Phillips screws from the back cover.
- There are two tabs on the bottom to insert an opening tool. One on the left
- and one on the right.







- Insert a plastic opening tool in those tabs, slide the tool to the outside while exerting some side pressure.
- This will loosen the bezel from the case.
- Continue to move it along the opening.







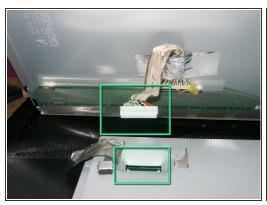
- The bottom will split relatively easy with the tool.
- Start at the split bottom and continue to move along the sides.
- The bezel will continue to split. This is the toughest part of the job and will require some patience.

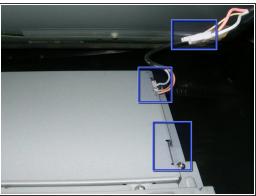






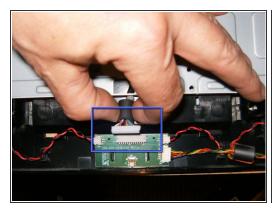
- With the bezel remove, the front panel of the monitor becomes visible. There are no screws that hold the panel in. It is the front bezel that holds it in place.
- Carefully lift the panel on the front, there are three cables that need to be removed.
- Remove the LVDS cable. It is a simple push connector, just pull the cable upward.



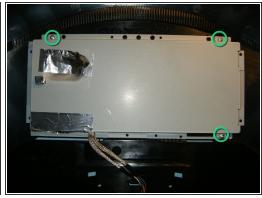




- LVDS cable removed
- CCFL cables removed
- With the cables removed, just lift the panel up and away. The chassis and metal case for the electronic is next







- Remove the cable from the power button board. Again, a simple push connector, remove the cable with a gentle pull.
- Remove the seven Phillips screws. The screws are all 1/2" with the exception of the center screws, that one is 1/4"
- Remove the bottom sheet metal, this will leave the cage for the electronics. remove the three Phillips screws.







- The three Phillips screws are 1/4" in length.
- With the screws removed, the top of the cage will open,
- and can now be separated in half.







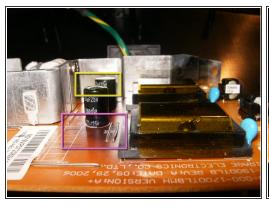
- Here is the electronics for the panel. Power board is to the left and video board to the right
- The power board is fastened with 4 1/4 inch Phillips screws. Remove those.
- Gently lift the board straight up, watch the connector on the right hand side.







- While gently lift the power board, the ground wire becomes visible.
- Remove the 5mmx6mm Phillips screw.
- With the four screws and the ground wire removed, lift the power board out of the cage. The component side can now be inspected.



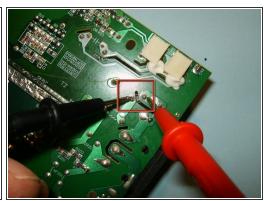




- Here is the importance of a visual inspection.
 - Blown caps, check bulges on top of caps,
 - as well as charring on the board itself.
- all of these capacitors have definitely failed. Again, check the tops for bulging.
- The power board has three fuses, those should be checked for continuity with a multimeter.







- second fuse checked okay,
- as well as the third fuse. this fuse looks a bit different,
- and needs to be checked on the solder side of the board.

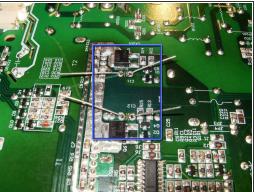






- The solder side shows the component to be desoldered C216 470uF 25V C213 680uF 25V C214 680uF 25V C212 680uF 25V C211 680uF 25V C215 470uF 25V C217 220uF 25V C12 220uF 25V C11 220uF 25V
- Desolder each cap with a solder wick, or solder sucker.
- Logic board with all the caps removed. Note the hatched area on the logic board. This corresponds with the capacitors polarity marking. It is the negative lead, also has a shorter leg, that goes to the hatched area.
 - Clearly visible is the charred area on the logic board at the transformer side







- Replace the capacitors with the appropriate ones. Watch the polarity, match shorter leg side into hatched area
- Once the capacitors are inserted, bend the leads toward the logic board. This will ensure that the caps are tight to the board, it will also make it easier to solder them.
- Once they are soldered, cut the excess with a pair of side cutters or equivalent. All capacitors on this board are exchanged in the same way.

Step 16





After reassembly of the monitor, hopefully the result will be the same. A functioning monitor:-)

To reassemble your device, follow these instructions in reverse order.