



Acer AL2216W Capacitor Replacement

If your AL2216W is having problems, it is...

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INTRODUCTION

If your AL2216W is having problems, it is likely due to bad capacitors. Here are some common symptoms of bad capacitors:

Note: While some issues may be corrected with a partial repair, this is NOT RECOMMENDED. One bad capacitor usually means the rest will fail!

- Power issues (Present issue)
- Excessive transformer/inverter hum (Present)
- Backlight problems
- Auto adjust problems (VGA) (Present)
- Random power issues that only resolve if the monitor is unplugged
- Video issues (Ex: Unstable image, video instability)

Original capacitor values (For Delta 00A power supply)

NOTE: I based the capacitor list on my monitor's specific power supply (Delta 00A). AS SUCH, YOURS MAY BE DIFFERENT. TO AVOID ISSUES WITH PARTS COMPATIBILITY, YOU MUST OPEN THE MONITOR UP TO VERIFY WHAT SPECIFIC CAPACITORS ARE USED. In addition to this, almost all of the original specced parts for the Delta 00A power supply are NLA or hard to come by and may need to be substituted with a part that has a higher voltage (V) or a higher microfarad rating (uF). If it comes down to this you must replace the entire bank of the substituted part otherwise the other capacitors are very likely to fail if they get power from the upgraded capacitor and are overloaded. This is the only real "issue" you may run into when upgrading parts; there are no issues in doing so otherwise as long as the upgrade is reasonable (Ex: 25v 1000uF no longer available, 35v 1000uf available).

NOTE: I have not attempted partial capacitor replacements with upgrades, so I do not know how keeping the originals and upgraded capacitors will affect the board. Even then, this is terrible practice; one going out usually means the others are next.

Part availability caution: While I did my best throughout this guide's life to keep up with part phaseouts (and "obsolete in practice" parts) by mitigating this issue with parts that are similar in voltage or uF, I cannot continuously monitor the market. You may need to make a substitution I did not make!

- 25V 1000uF (x2)
- 10V 1000uF (x1)
- 25V 220uF (x2)
- 16V 2200uF (x1, **Found on early power supplies and is used to drive the inverter transformer. Not used on most power supply revisions as it was later removed**)

🔧 TOOLS:

Soldering Workstation (1)

Recommended option if you need to purchase most of these tools.

Essential Electronics Toolkit (1)

NOTE: 5mm Nut Driver required, but not included.

5mm Nut Driver (1)

Required for port standoffs.

6-in-1 Screwdriver (1)

Using this WILL damage the plastic, but works well to open "virgin" monitors and difficult clips.

Helping Hands (1)

Helpful for soldering replacement capacitors.

Lead-Free Solder (1)

If you have the tools, here's a direct way to buy the solder without tools.

63/37 Lead Solder (1)

Included as an option for people who prefer leaded solder. This is optional and will ruin the monitor's ROHS compliance if used.

⚙️ PARTS:

35v 1000uf capacitor (2)

Original capacitor hard to find - replaces 25V 1000uF

10v 1000uf capacitor (1)

35v 220uf capacitor (2)

Original capacitor hard to find - replaces 25V 220uF

16v 2200uf capacitor (1)

Only required on early power supplies (Delta 00A and other early versions).

Step 1 — Discharge the old capacitors



⚠️ **CAUTION: If you are uncertain about handling high voltage parts, follow all provided warnings! A capacitor discharge tool is **STRONGLY RECOMMENDED**.**

⚠️ **The filter capacitor will hold the most residual charge. Use caution around this capacitor!**

- Unplug the monitor for **24-48 hours. Wait 5-7 days before swapping the filter capacitor.**

Step 2 — Remove the stand



☑ This monitor never came with a hinge cap. If yours has one, unclip the marks in black.

- Remove the 4 screws from the monitor stand with a **Philips #1** screwdriver. **Remove the bottom screws first.**

Step 3 — Remove the back of the monitor



- Sort this screw separately, as it is unique.
- Remove 4 fine threaded screws from the back of the monitor with a **Phillips #0** screwdriver. All of these screws are the same.

Step 4 — Unlatch the clips (Bottom)



- ① If the monitor has never been serviced, a flathead screwdriver may help ***at the expensive of damaging the plastic.***
- On the bottom of the monitor, there are four slots to open the monitor. To release these clips, use a Jimmy or flathead screwdriver.

Step 5 — Unlatch the clips (Side)



- ★ If you are having trouble doing this, use a pry tool. An unserviced monitor may not come up as easily.
- With the monitor unclipped on the bottom, pull the sides of the monitor up. Do this slowly to avoid cracking the LCD.

Step 6 — Remove the IEC socket screws



⚠ After these screws are removed, the power supply will be exposed.

- With the back of the monitor off, remove the 2 screws on the IEC power connector using a **Phillips #0** screwdriver.

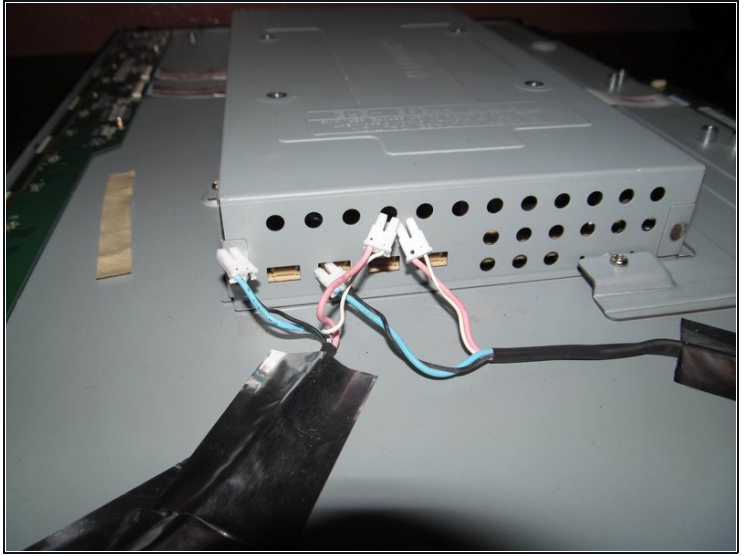
Step 7 — Remove the video connection screws



★ If you do not have a nut driver on hand, needlenoose pliers can be used.

- Remove the 4 screw pins for the video cables from the monitor. Use a **5mm Nut** bit/driver to remove the screw pins from the power supply shield.

Step 8 — Disconnect the backlight cables



- Disconnect the CCFL cables from the power supply board.

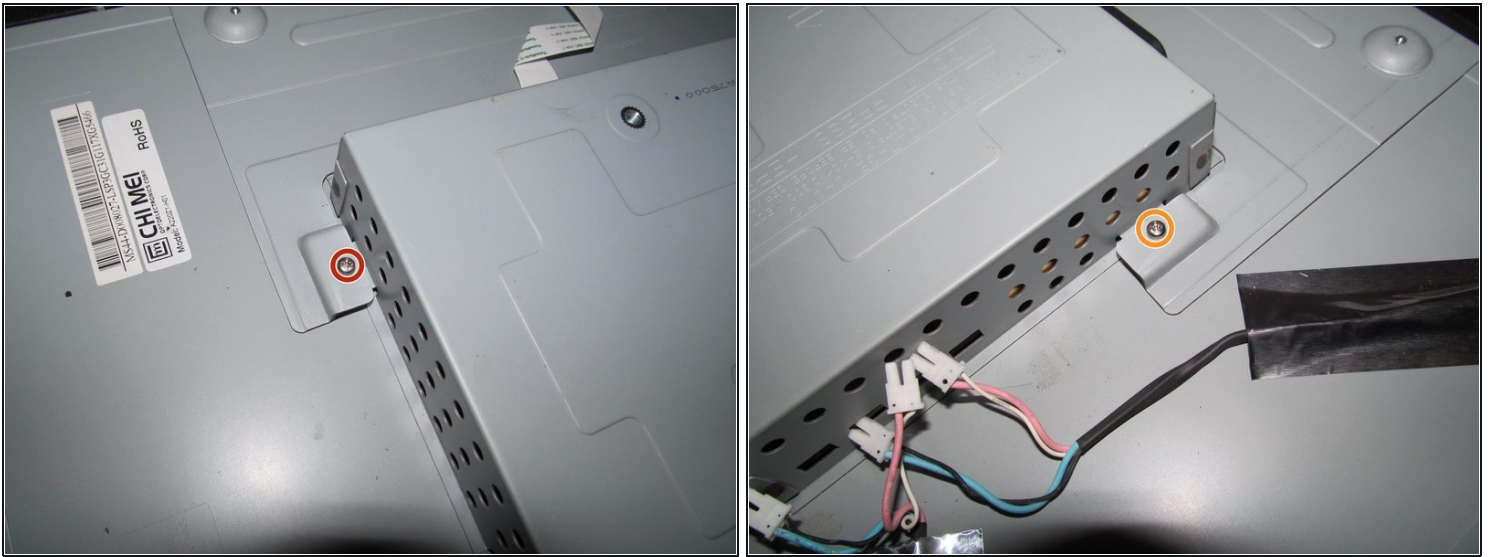
Step 9 — Disconnect the button board



① Board removal is optional.

- Disconnect the flat flex cable that goes to the control board.

Step 10 — Remove the power supply shield (Part 1)



- Remove the 2 lower screws that hold the power supply shield to the monitor with a **Phillips #0** screwdriver.

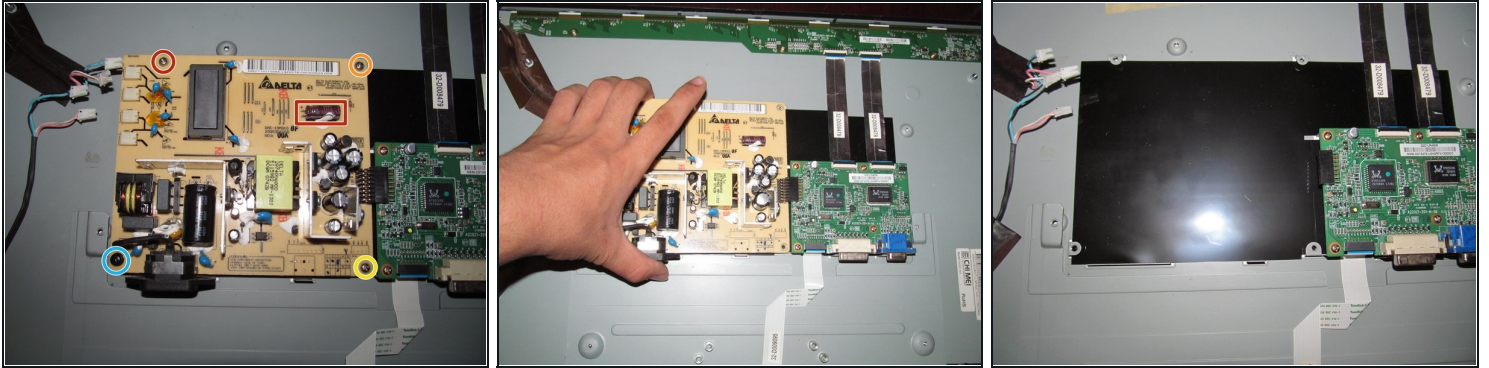
Step 11 — Remove the power supply shield (Part 2)



★ ***The lower shield does not have to be removed. However, it will make disassembly easier.***

- On the right side of the monitor, remove the remaining screws holding the shield in place.
- Lift the lower plate up while removing the power supply shield to remove it from the monitor. Once this is done, you will have access to the power supply.

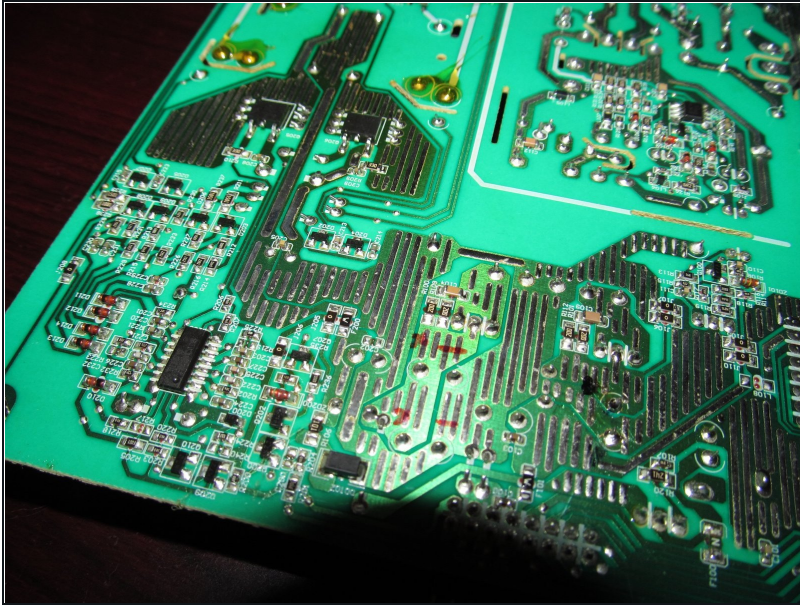
Step 12 — Remove the power supply



⚠ If you see bulged capacitors, assume there is residual charge. THE FILTER CAPACITOR MUST BE DISCHARGED! THE BLACK SCREW IS A GROUNDING SCREW AND MUST BE PLACED CORRECTLY.

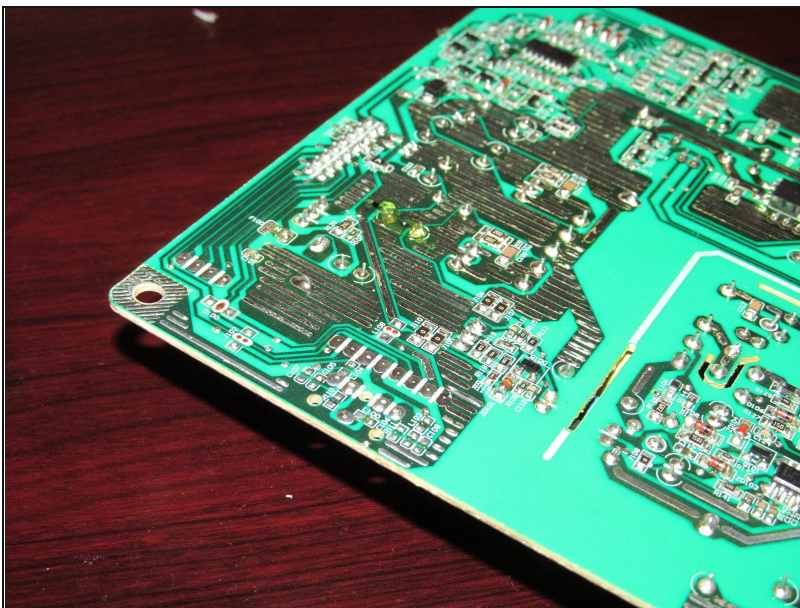
- This capacitor is only found on older power supplies. ***Replacement is advised, but not required.***
- With the power supply shield removed from the monitor, identify the power supply. ***Take note of the values, including the inverter cap (if present).***
- Remove the 4 screws from the power supply. Once this is done, lift up the power supply at a slight angle to clear the chassis. ***Do not lift too much or the connector may be damaged!***

Step 13 — (Optional) Capacitor polarity marking



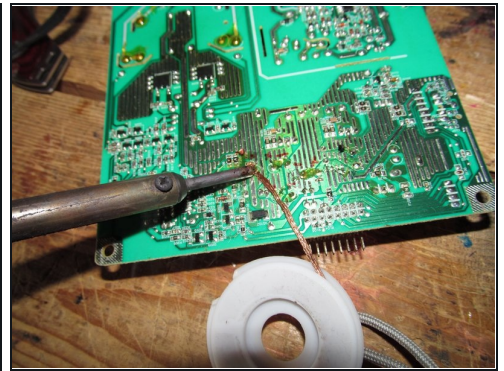
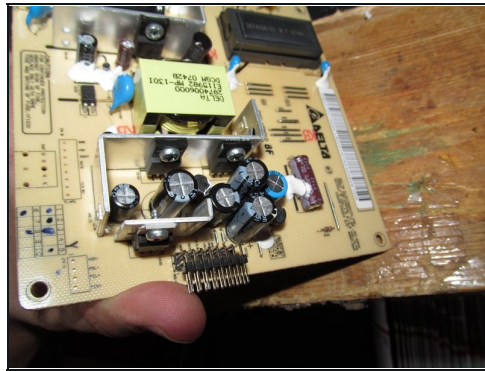
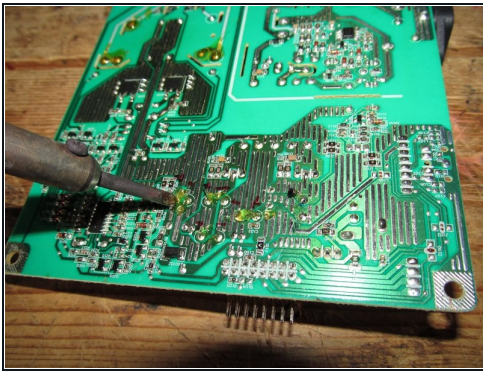
- ★ If the PCB is marked to avoid mis-installation, the flux will wash these marks off.
- If you are unsure of the position of the capacitors, mark the polarity with a permanent marker. ***If the capacitors are incorrectly installed, they will explode when power is applied.***

Step 14 — Add flux to the capacitor leads



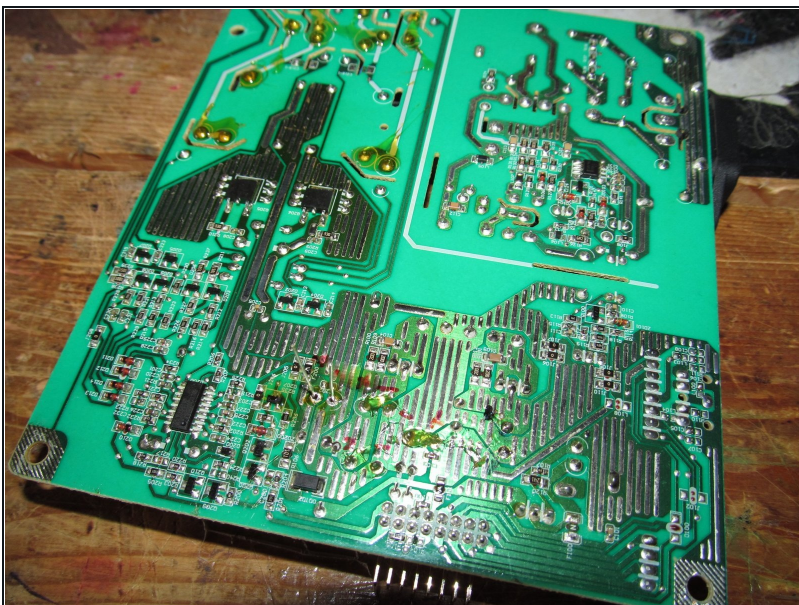
- ★ If you do not have flux on hand, solder can be used. ***Some flux is difficult to clean if overused.***
- To prepare the board for capacitor replacement, add flux or solder.

Step 15 — Remove the old capacitors



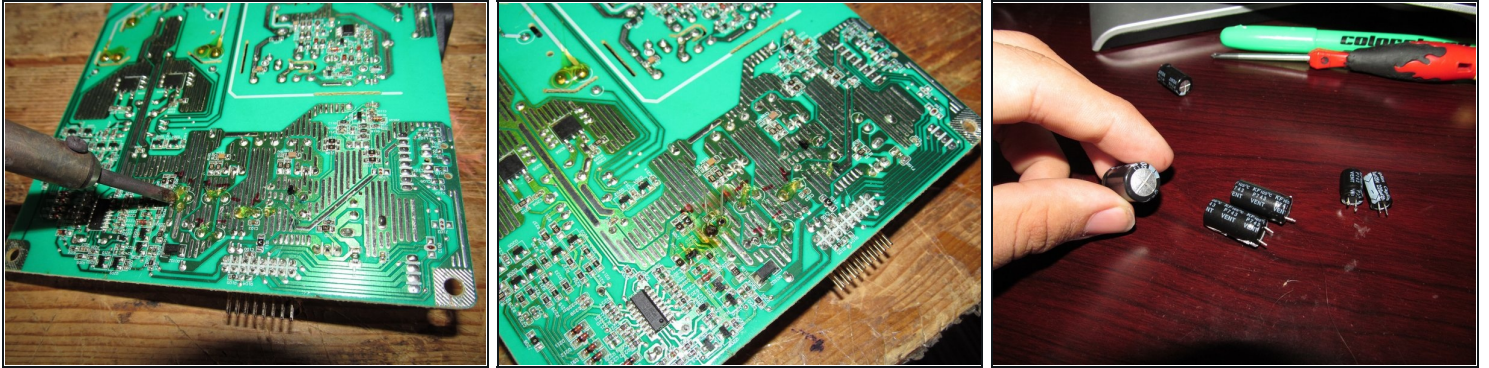
- ⚠ *Use of a Helping Hands is recommended to avoid soldering iron contact. If you do not have one, hold the board at an angle.*
- ⚠ *While a partial replacement may work, the remaining capacitors will fail. It is best to do them all while servicing the failed ones. [Refer to this guide for a soldering "how to".](#)*
- **Move to a workspace with ventilation or use a fume extractor.** Once in an appropriate workspace, desolder the old capacitors. Heat up each leg and remove it.
- After removing the capacitors, clean up the old solder with a desoldering braid. **Lift it with the iron when removing it.**

Step 16 — Installing brand new capacitors



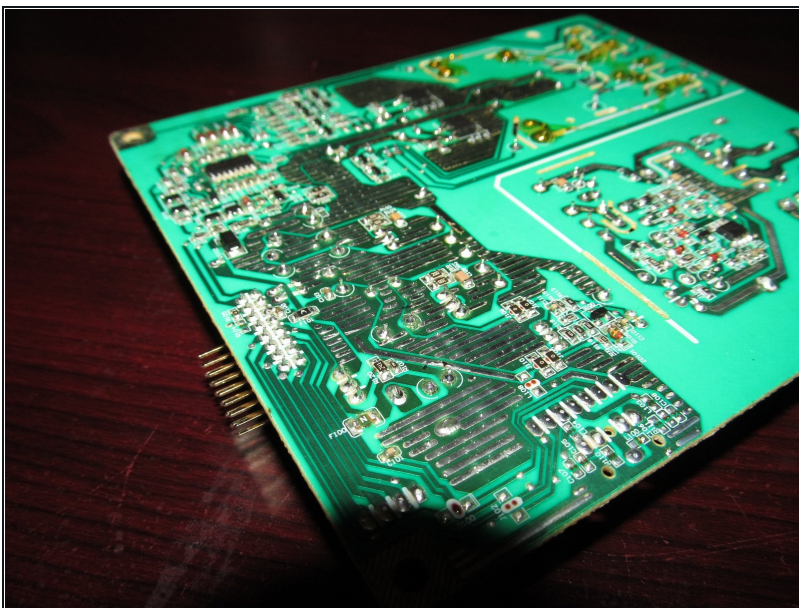
- ⚠ *Check the capacitor polarity before soldering the new capacitors in. Incorrectly installed capacitors will explode with power applied!*
- Install the new capacitors. Check the polarity and bend the leads so they do not come loose during installation.

Step 17 — Solder the new capacitors in



- Once the polarity is verified, solder the capacitors in. After installation, cut off any excess lead.

Step 18 — Clean the flux off of the board



- After verifying there are no cold solder joints, clean the board.
This can be cleaned with 91%+ Isopropyl or denatured alcohol.

Step 19 — Test the monitor



- Put the monitor back together and test the repair.

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