



Acer AL2216W Power Supply Capacitor Replacement

WP Users: USE THE MOBILE SITE. THE INTRO DOES NOT WORK AND CONTAINS KEY INFORMATION.

Written By: Nick



INTRODUCTION

If your AL2216W is having problems, it is likely a capacitor fault. Here are some signs of bad capacitors:

Note: While some issues may be corrected with a partial repair, this is NOT RECOMMENDED since one bad capacitor usually means the entire set will fail. Change them all in one repair!

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

Original capacitor values (Delta 00A power supply ONLY)

NOTE: Most of these values are obsolete/revision specific - check your board for the capacitors you need. MANY CAPACITORS WILL NEED TO BE UPGRADED as most of these are obsolete or hard to get.

- 25V 1000uF (x2)
- 10V 1000uF (x1)
- 25V 220uF (x2)
- 16V 2200uF inverter (x1/Early power supplies)



TOOLS:

- [Soldering Workstation](#) (1)
- [60/40 Leaded Solder](#) (1)
- [Jimmy](#) (1)

May prove useful on revisions like the AL2216W BL

- [64 Bit Driver Kit](#) (1)
- [helping hands](#) (1)

Makes capacitor removal easier

- [Flathead Screwdriver](#) (1)

This WILL damage plastic, but works well on stubborn monitors.



PARTS:

- [35v 1000uf capacitor](#) (2)

Replaces 25V 1000uF capacitor

- [10v 1000uf capacitor](#) (1)

- [35v 220uf capacitor](#) (2)

Replaces 25V 220uF capacitor

- [16v 2200uf capacitor](#) (1)

Inverter coil capacitor - early supplies only.

Step 1 — Discharge the old capacitors



⚠ Caution: If you are uncertain about holding high voltage parts, follow all provided warnings and use common sense. 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** if the filter capacitor is replaced.

Step 2 — Remove the stand



✦ This monitor never came with a hinge cap. If yours has one, snap it off from the marked points.

- Remove the stand from the monitor. Remove the 4 screws that hold the stand on. The bottom screws should be removed first, but this can be done in any order.

Step 3 — Remove the back of the monitor



- Remove 4 fine threaded screws from the back of the monitor. All of these screws are the same type and length.
- This screw is unique and only goes in one place as the thread is different. Set it aside separately.

Step 4 — Unlatch the clips (Bottom)



- ❗ If the monitor has never been serviced, a flathead screwdriver may be needed. ***This will damage the plastic casing.***
- 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. Unserviced monitors can be stubborn.
- With the monitor unclipped on the bottom, pull the sides of the monitor up. Do this slowly to avoid damaging the plastics and 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.

Step 7 — Remove the video connection screws



★ If you do not have a nut driver on hand, needlenoose plyers can also 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



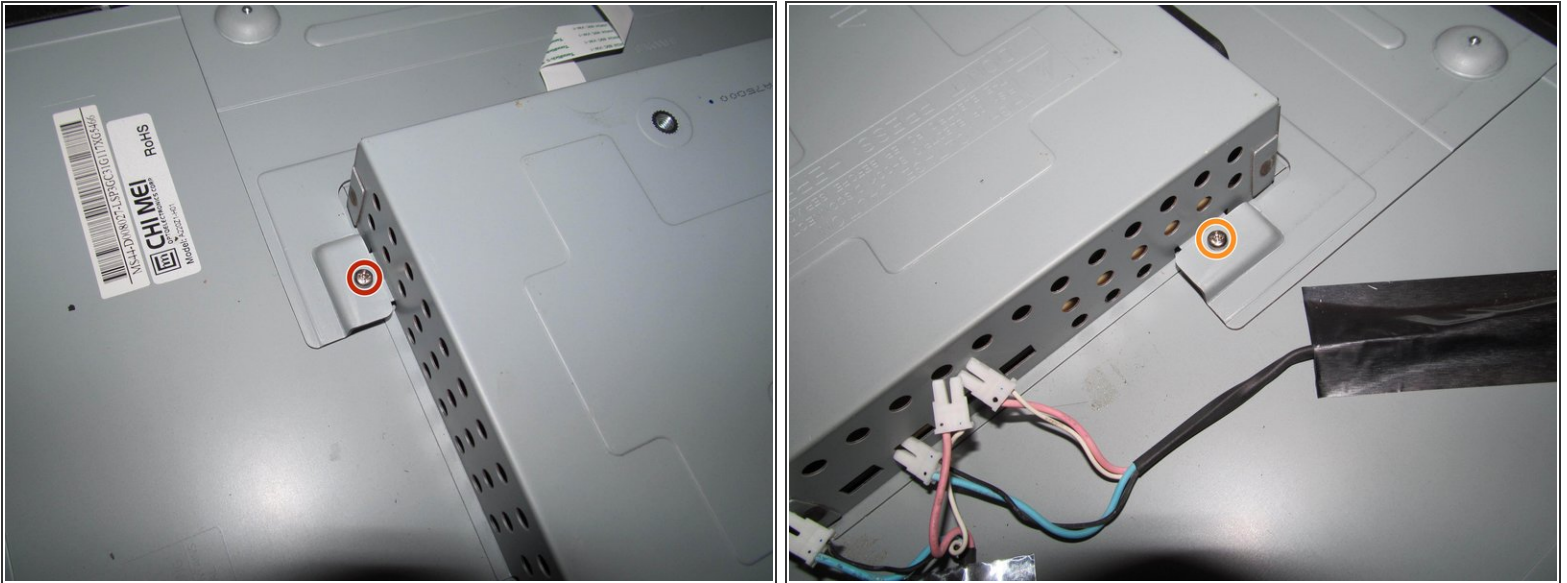
- Disconnect the CCFL cables from the power supply board.

Step 9 — Disconnect the button board



- ☒ Power button 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.

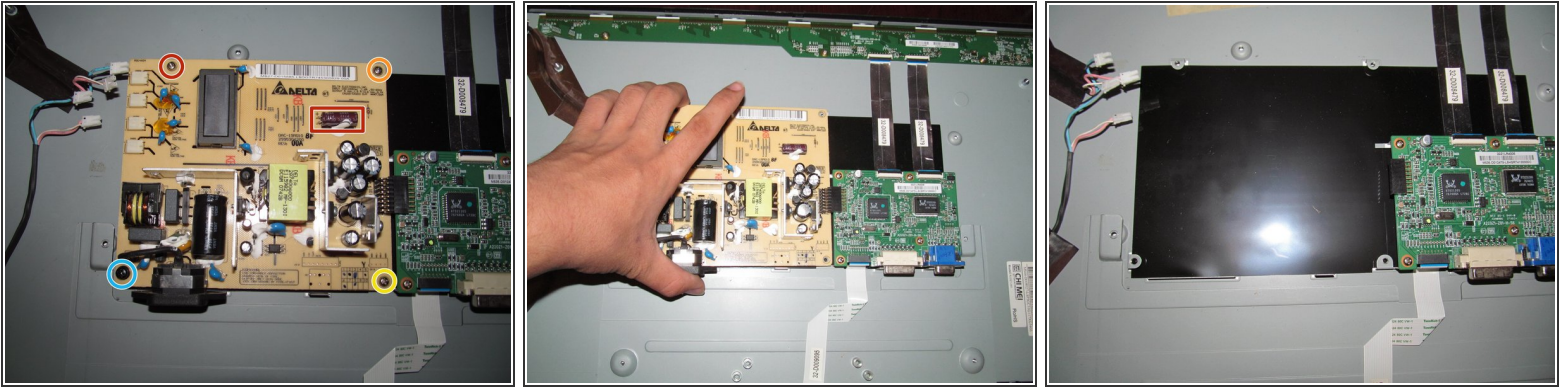
Step 11 — Remove the power supply shield (Part 2)



- ☑ Removal of the lower shield is not required but makes the job easier. ***To remove it, unclip the plastic tabs on the LCD bezel.***

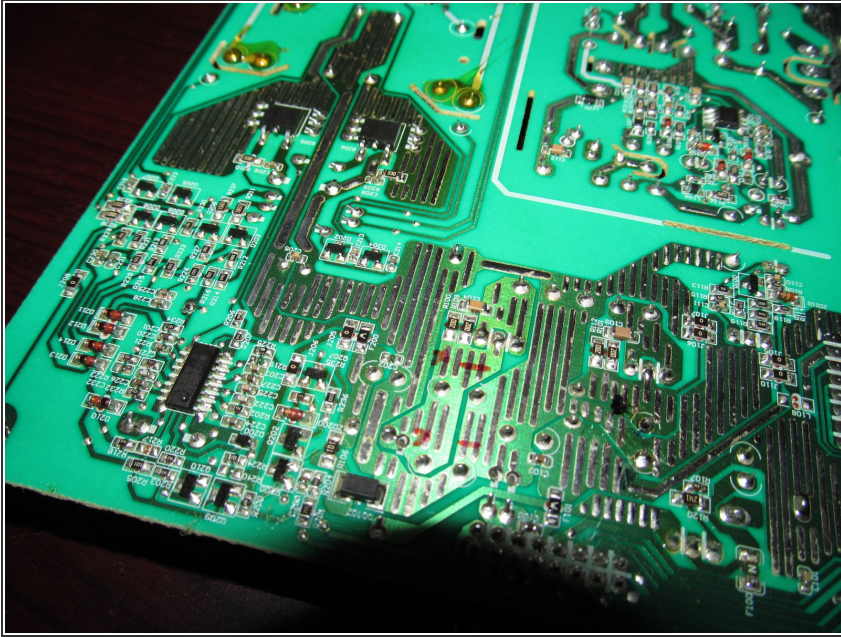
- On the right side of the monitor, remove the remaining screws holding the shield in place.
- Lift the lower plate up while removing the power supply shield to remove it from the monitor. Once this is done, you will have access to the power supply.

Step 12 — Remove the power supply



- ⚠ **If you see bulged capacitors, treat the power supply as if the capacitors are holding a residual charge.**
- ⚠ **If the filter capacitor is replaced, IT MUST BE DISCHARGED. In addition, the black screw (Blue marker) is for grounding and cannot be lost.**
- ⚠ Only lift the power supply board at a slight angle. Lifting it any higher may damage the processing board or interface.
- ★ **If you cannot find the original capacitors, the original parts can be substituted.**
 - This capacitor is only found on older power supplies. **Replacement is not required, but recommended.**
 - 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.

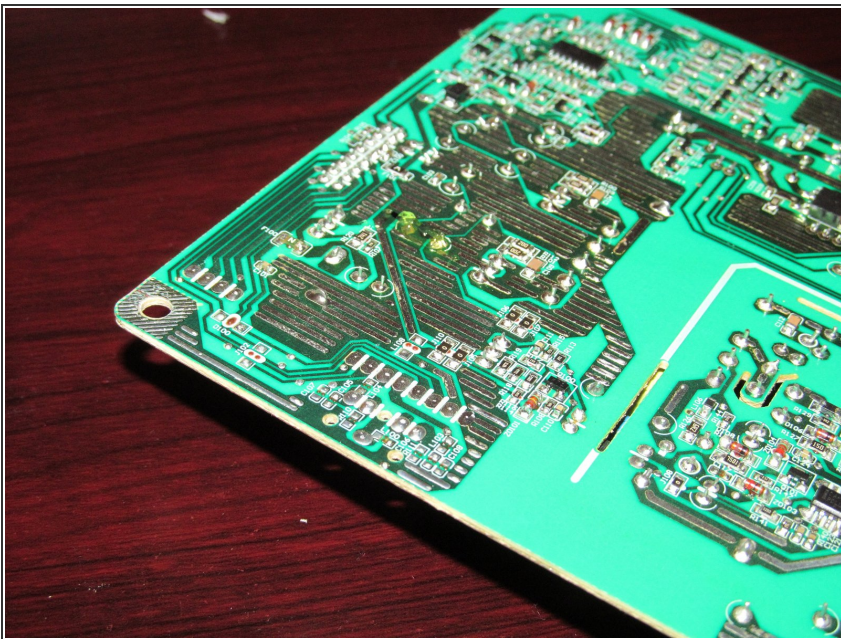
Step 13 — (Optional) Capacitor polarity marking



★ **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 installed incorrectly, they will explode when power is applied.**

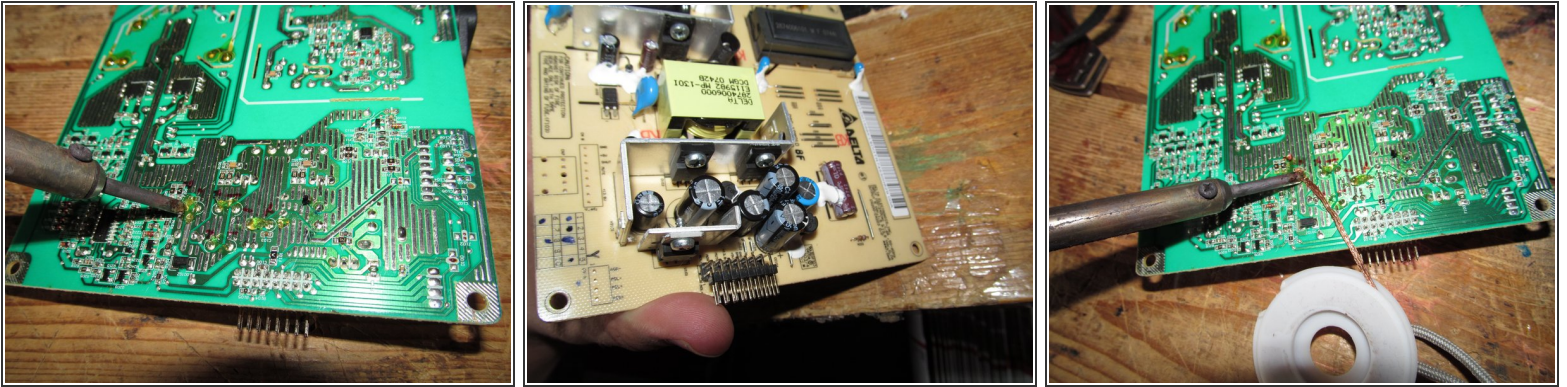
Step 14 — Add flux to the capacitor leads




★ If you do not have flux on hand, solder can be used. **The flux may be difficult to clean if overused.**

- To prepare the board for capacitor replacement, add flux or solder to ease removal.

Step 15 — Remove the old capacitors

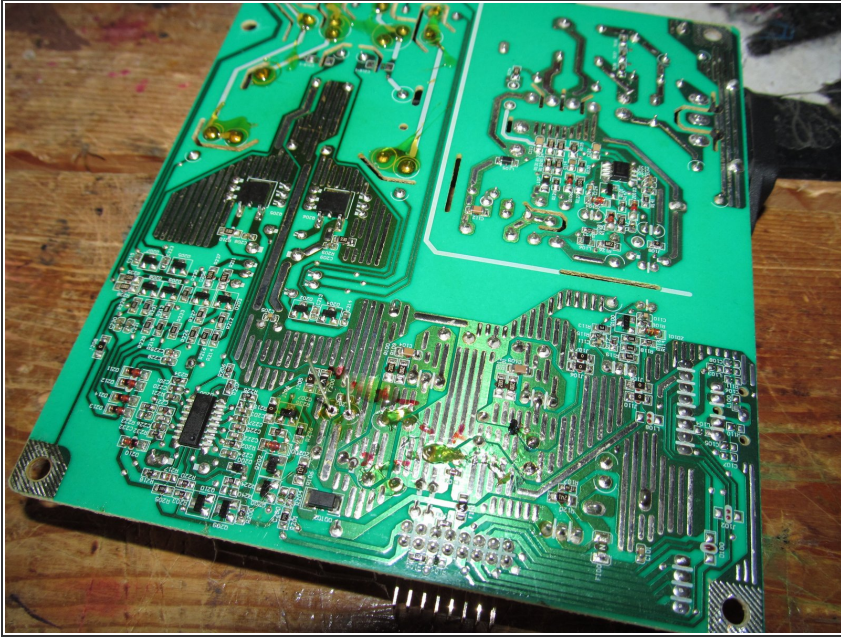


 **Use of a Helping Hands is recommended to avoid soldering iron contact. If you do not have one, hold the board at an angle.**

 **While a partial replacement may work, the remaining capacitors will fail.** Change the entire set while it is apart. **Refer to this guide for soldering tips: [How To Solder and Desolder Connections](#).**

- **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.**

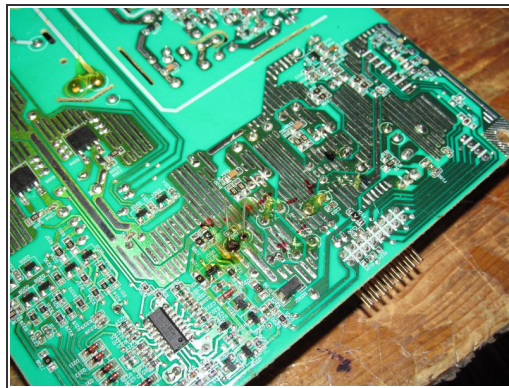
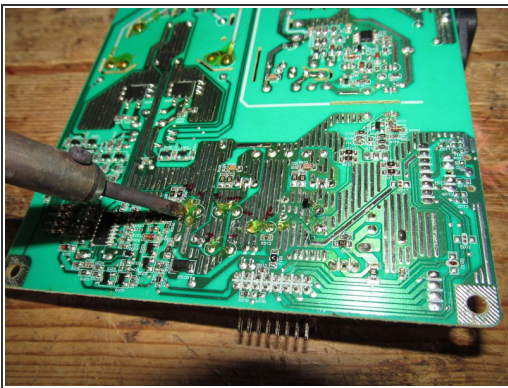
Step 16 — Installing brand new capacitors



⚠ Check the capacitor polarity before soldering the new capacitors in. If they are installed incorrectly, they will explode!

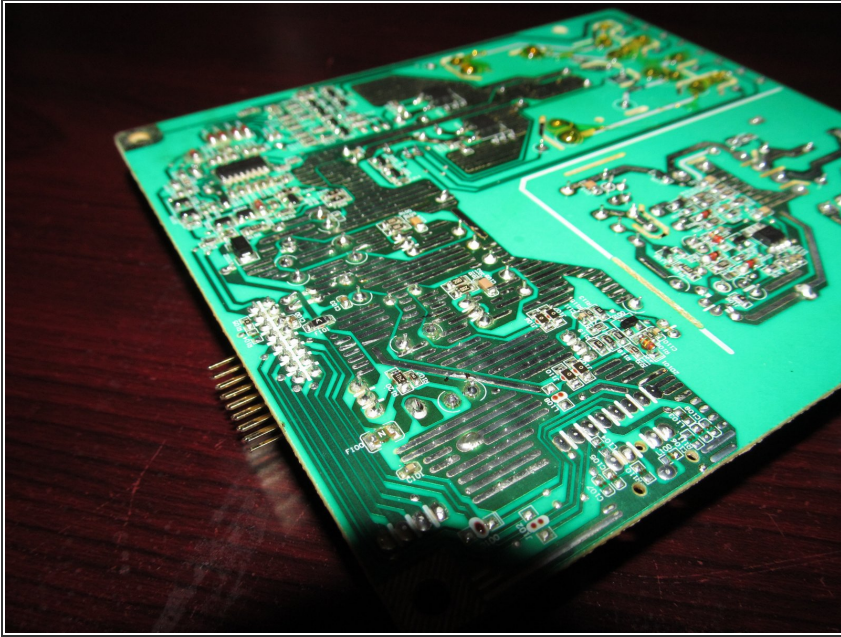
- Install the new capacitors. Check the polarity/placement and bend the leads so they do not come loose during installation.

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.