



# Acer AL2216W Power Supply Capacitor Replacement

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

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## 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, needlenose pliers 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.

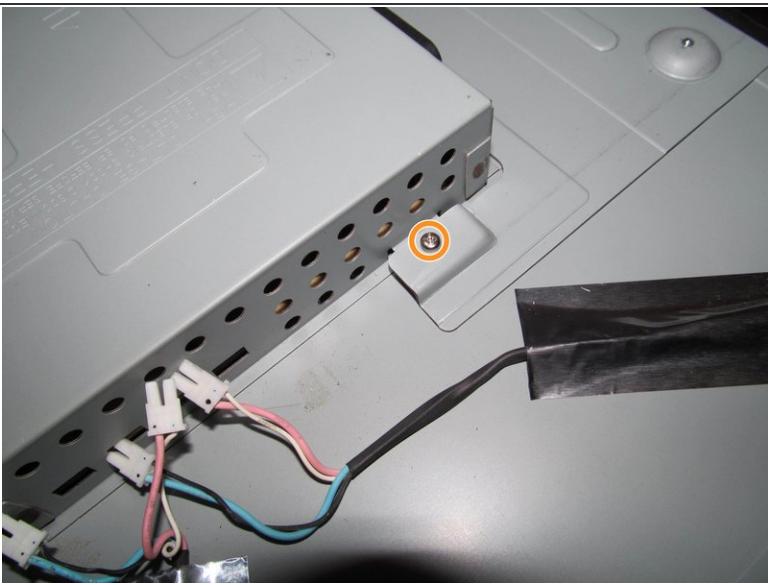
## Step 9 — Disconnect the button board



 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.

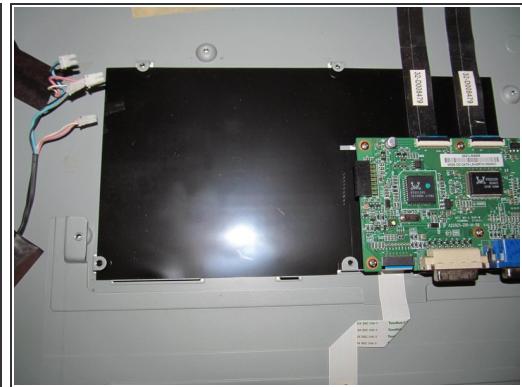
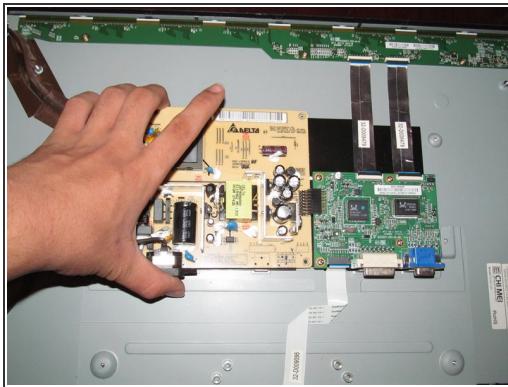
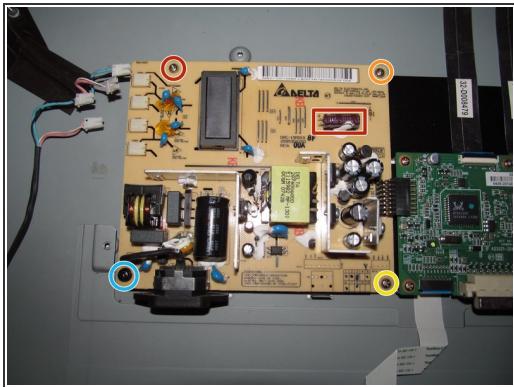
## Step 11 — Remove the power supply shield (Part 2)



➡ 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.**

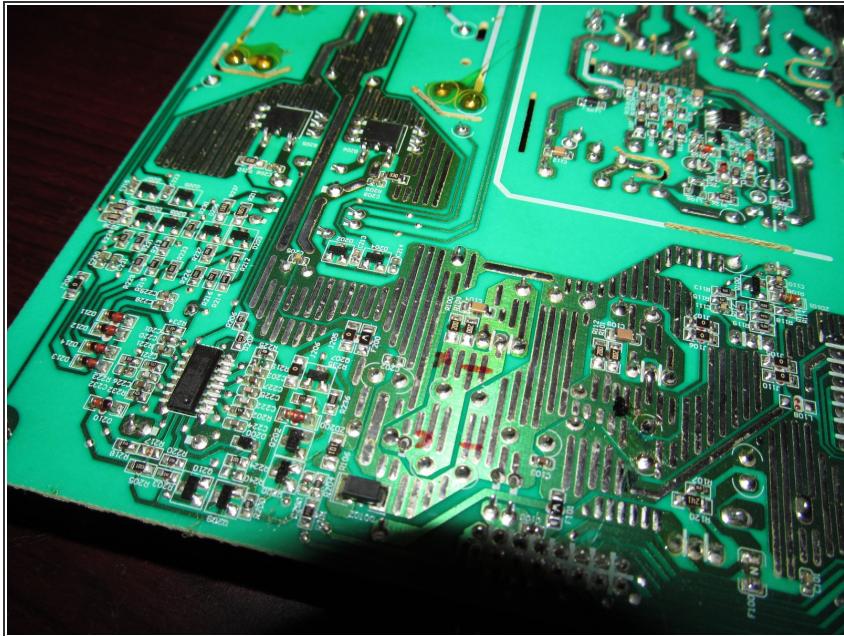
**⚠ If the filter capacitor is replaced, IT MUST BE DISCHARGED. In addition, the black screw (Blue marker) is for grounding and cannot be lost.**

**⚠ 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.

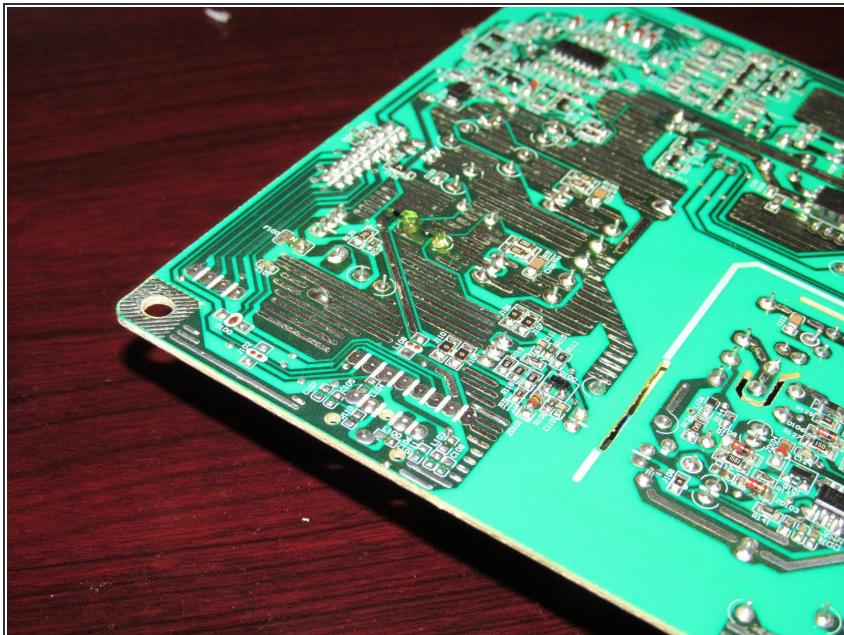
## Step 13 — (Optional) Capacitor polarity marking



★ **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.**

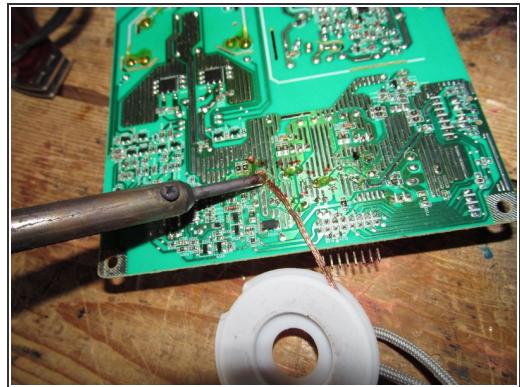
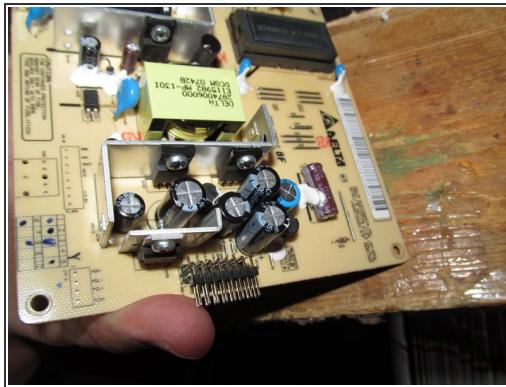
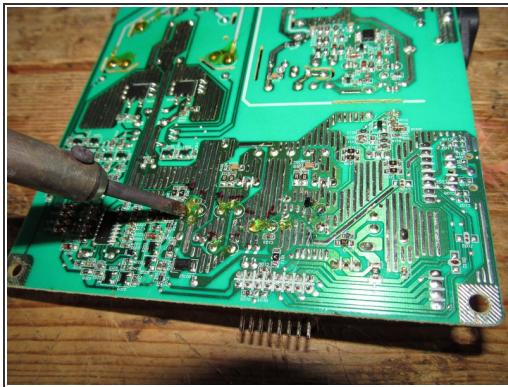
## Step 14 — Add flux to the capacitor leads



★ **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

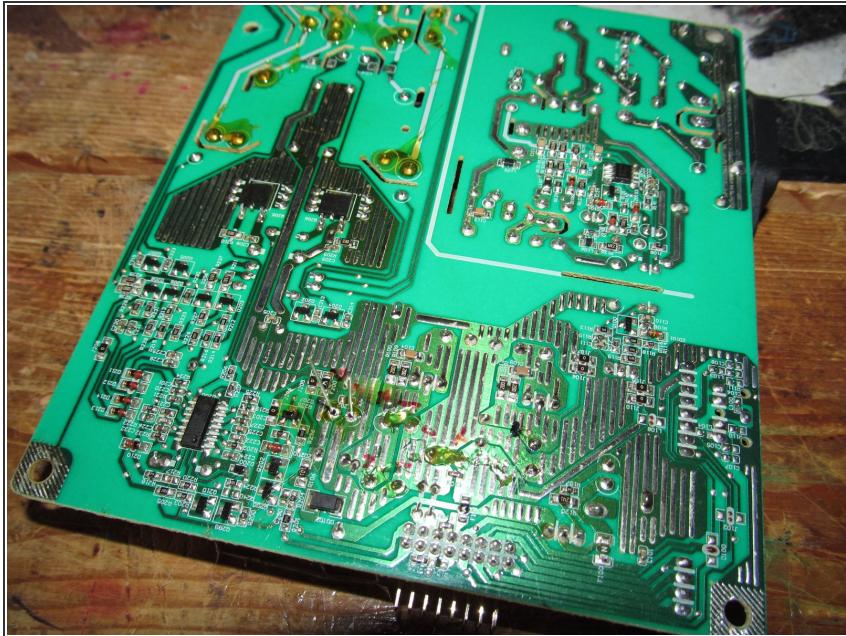


**⚠ Use of a Helping Hands is recommended to avoid soldering iron contact. If you do not have one, hold the board at an angle.**

**★ 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!***

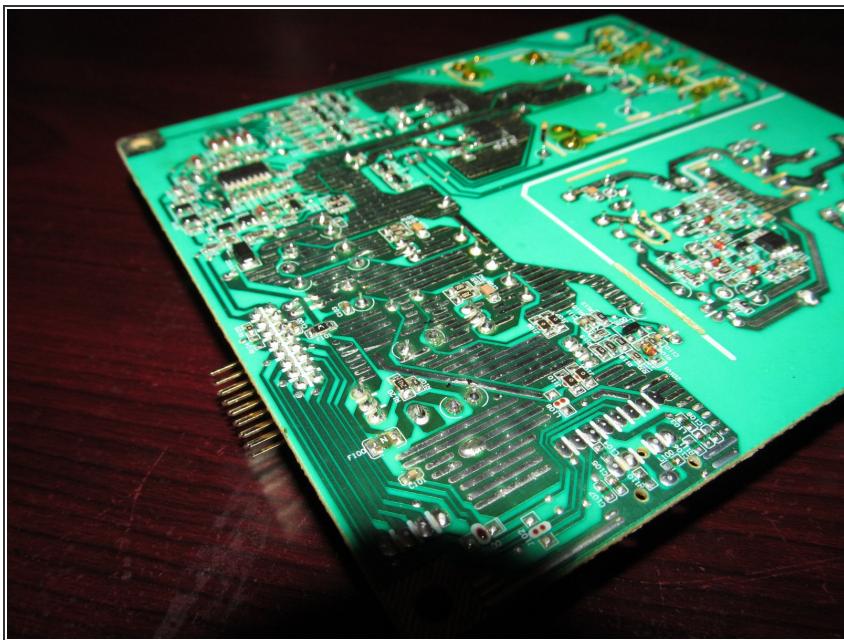
- Install the new capacitors. Check the polarity/placement and bend the leads so they do not come loose during installation.

## 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.