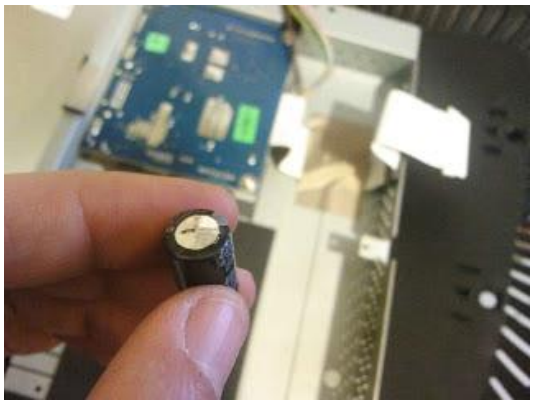
REPAIRING AN LCD SCREEN: REPLACING BLOWN CAPACITORS

The capacitors are famous for electrolytic fail when subjected to long time of use, temperature and stress, swelling and bursting the top cover where release of the electrolyte liquid inside. Many basis of old computers that had this type of capacitor plates ended up failing after 2 years, and now they are substituted for polymer electrolytic capacitors aluminum, stronger and more durable.



IMPORTANT : Before you throw a screen away because you think beyond repair, **ask before budget in an electronic workshop** , it may be a small thing (every day are cheaper and sometimes costs more to repair, but still not worth more than a new repair, convenient repair, you are recycling, less waste and investing in local labor).

In this case I was left a screen which two seconds to light the lamps emitting a like a very low "zzzzz" buzzing sound turned off.

The sound was probably the vibration of capacitors stage transformation frequency of 50 Hz which is the AC, that being in poor condition that sound emitted.

DANGER HIGH VOLTAGE : The display inverter amplifies much voltage so it is dangerous, always be careful, and although the circuit is not energized, be aware that you can have energy stored in capacitors and transformers that if play, can give you a good scare.

Substituting capacitors inflated

As you can see in the picture below, 6 capacitors stage of transformation and investment to feed the 4 lamps in this screen were busted, so before looking around, I changed it to others of the same value capacity (470 uF) or somewhat higher (no more than 40% or could not do their job well); important to respect the voltage and never put another new capacitor voltage lower than requested (but you can put higher voltage).

What values do you choose? It is important to respect the capacity (uF), the voltage can be higher but never less . Sometimes you do not get the same value of (uF) and voltage; then try to put them uF and higher voltage (even better they endure use), and if not, something greater capacity (up to 40% more there is usually no problem).

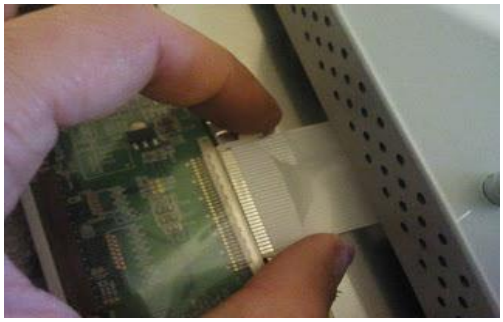
We can also do like batteries (not more than very small rechargeable batteries), build one of capacitance and voltage required by joining several in series or in parallel; if we put in series to find the total capacity must be added capabilities and divide by the number of elements, and the voltage is the sum of each (always put equal voltages in series). If you put in parallel then have to add capacity and voltage will be the lesser of the components. Differences in series and parallel .

To remove what I do I'm with a soldering iron 40W minimum heat one of the connections of the two having the condenser and pull slightly on that side, to then heat the other leg until the tin is made fluid, and proceed in the same way with the other side. Do not pull too because we can stay with the capacitor in the hand and leg still on the board, although we can then remove with pliers and heating the solder well. So I do, but if you do it often buy some one desestañador balloon eg. Fijaros before removing the condenser if it matches what marked on the silkscreen if it was wrong (you have already occurred).

I changed the damaged and I replaced the circuit in place, with good luck to prove that the screen came to life running smoothly. Luckily no other item was damaged. I left a few hours turned to check that everything was ok, and returned it to its owner.

Opening the display To disarm the screen (one Hannsfree) let out all the screws from the rear, drawing from his site support and then using a screwdriver or knife to pry, go separating the front cover gray, remaining in sight all internal components.

We lift the LCD screen to access the transformation stage and inverter powering the lamps, and after loosening the screws and lamp cords, release the data cable pulling gently (no connectors strip of various types, some require removing a cap to release, in this case the image will simply pressing):



And we can access up to drop the damaged screws and remove the side piece to the board that handles the processing of the image received by the VGA connector part; image and the hole where the piece was that we repaired:

Source: http://crecimiento-sostenible.blogspot.in/2015/01/repairing-lcd-screen-replacing-blown.html