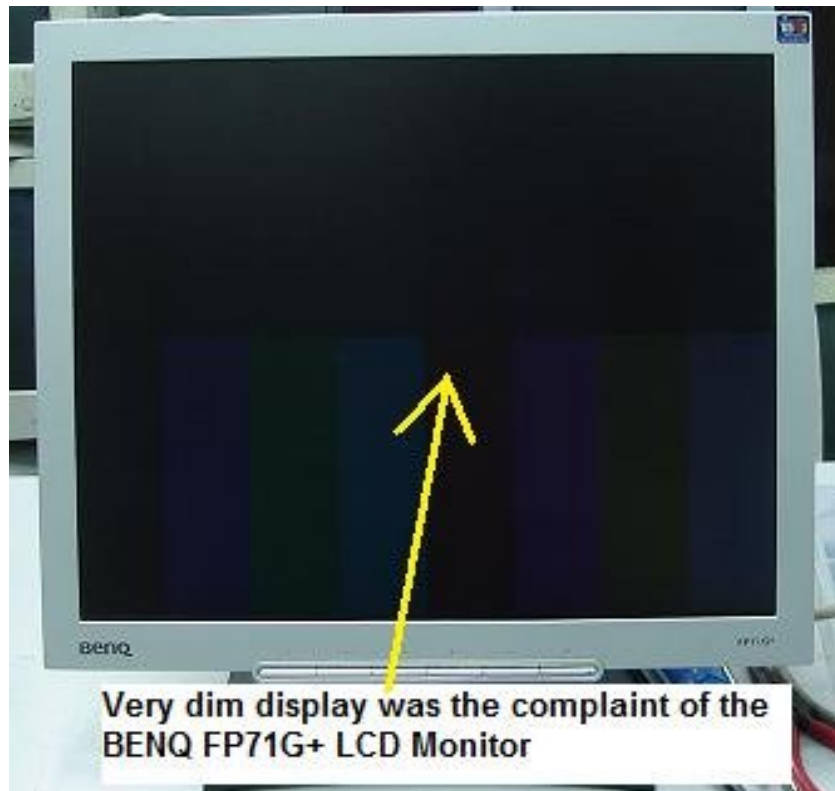


How To Repair Dim Display in BenQ FP71G+ 17" LCD Monitor

Brought to you by Jestine Yong

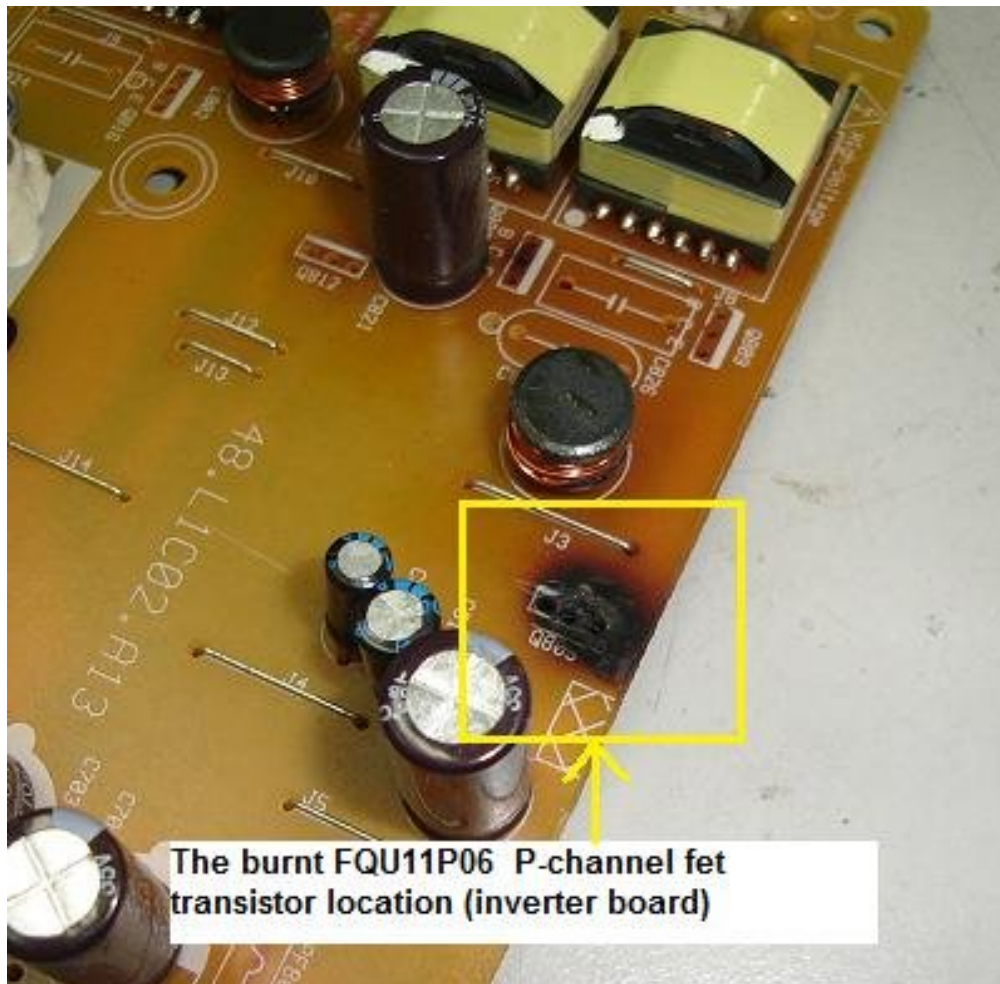
<http://www.LCD-Monitor-Repair.com>

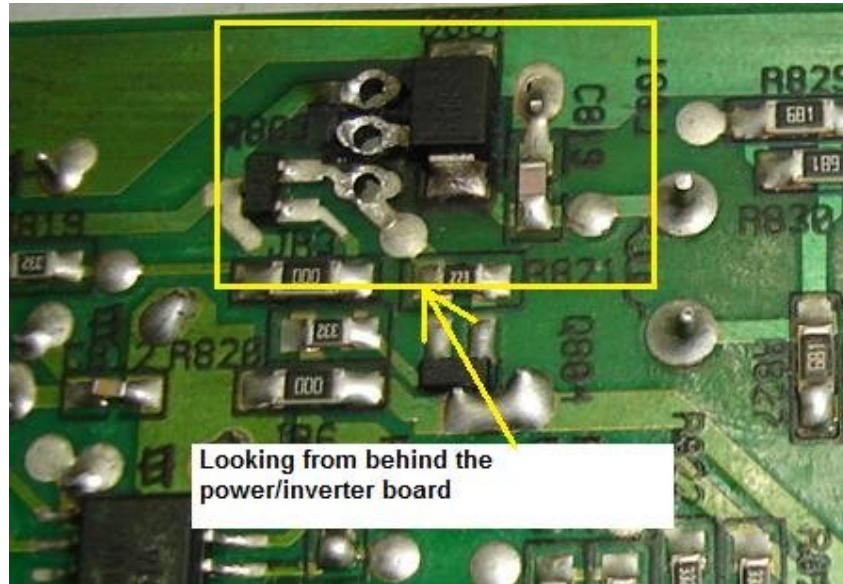


Normally for this BenQ FP71G+ LCD Monitor with the model of Q7T4 the major complaint was display appears for a while and then shutdown (cut off) but for this unit the complaint was dim display! That means you don't have the chance to see the bright BenQ logo the moment power is "On". If you look at the screen closely you could actually see the picture except that the display is very dark. If you could see the display, this means that the Main board, power board and the LCD Panel are working!

There could be two reasons, it is either the backlights have problem or the inverter board is faulty. Since most of the LCD Monitors in the market have top and bottom backlights, chances for both the top and the bottom backlights failed at the same time is very slim. Due to this description, I have eliminated backlights as the cause of the problem. So my

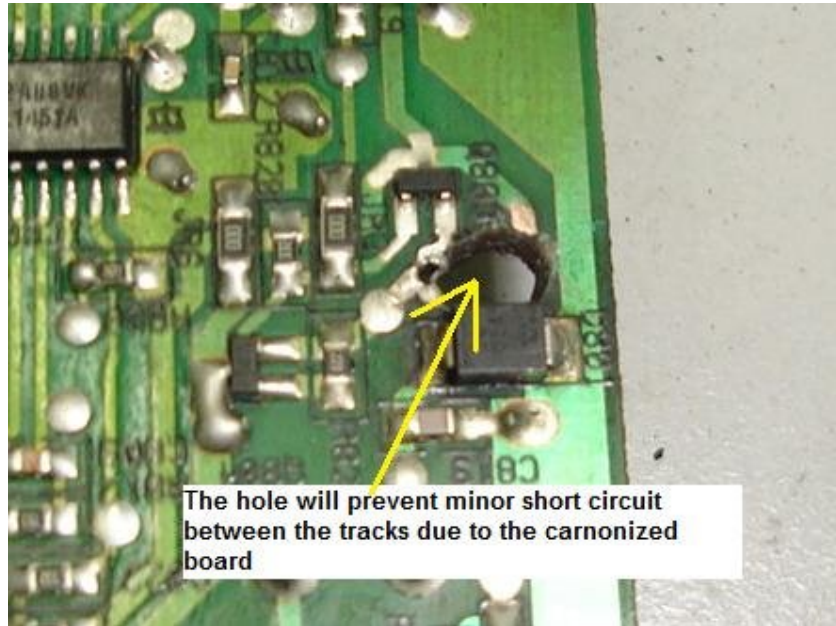
concentration will be in the inverter board. Now this assumption came across my mind even before the LCD Monitor cover was removed! It is good to assume and expect which circuit that causes the problem as this will motivate you even more if the assumption is correct. Many suggestions came out from my mind and I have to decide for the best. If the assumption is wrong, then I have to ask myself is there anyway I can improve it. Don't put too much pressure on yourself if the assumption is way off from what you have expected, as learning from our own mistakes is the best guide for us!



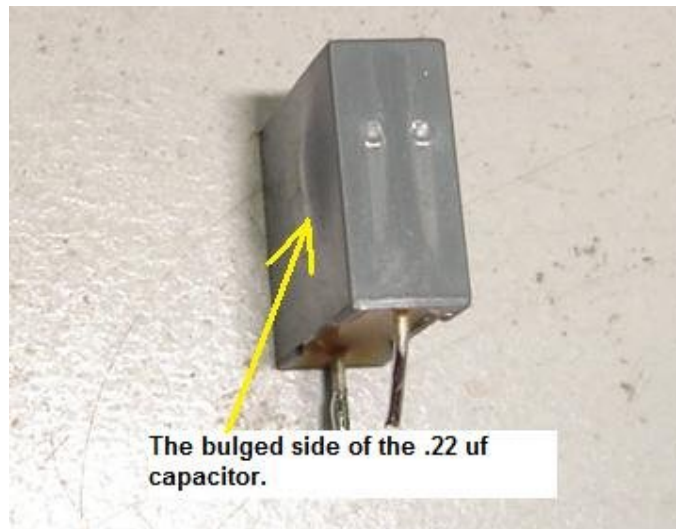


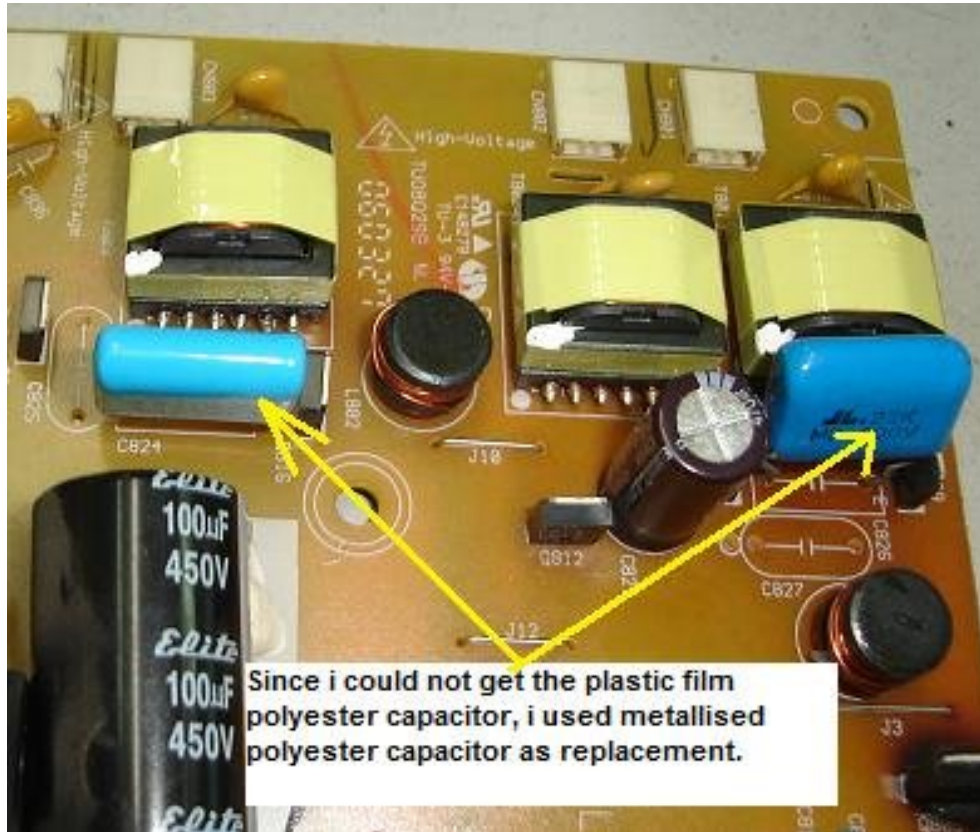
The moment the metal casing was removed, I could clearly see a burnt mark surrounding a transistor located at the inverter board area. My assumption was right about the inverter circuit fault and upon close inspection; the slightly dark transistor has the part number of FQU11P06. It is a P-channel FET transistor and it can be replaced with part number FU9024N. The area now has darkened and if you directly install a new transistor in it, I believe the darkened area could cause intermittent problem or total destruction again to the new transistor!

Why? It is because the darkened area has become carbonized and current can flow to other circuits causing the transistor to go shorted again. In order to eliminate this problem, one has to scrap off the darkened area and due to the board is so fragile; the only way you can do is to make one hole in the area. Clean the area with thinner and install the new transistor and it should not have problem after that.

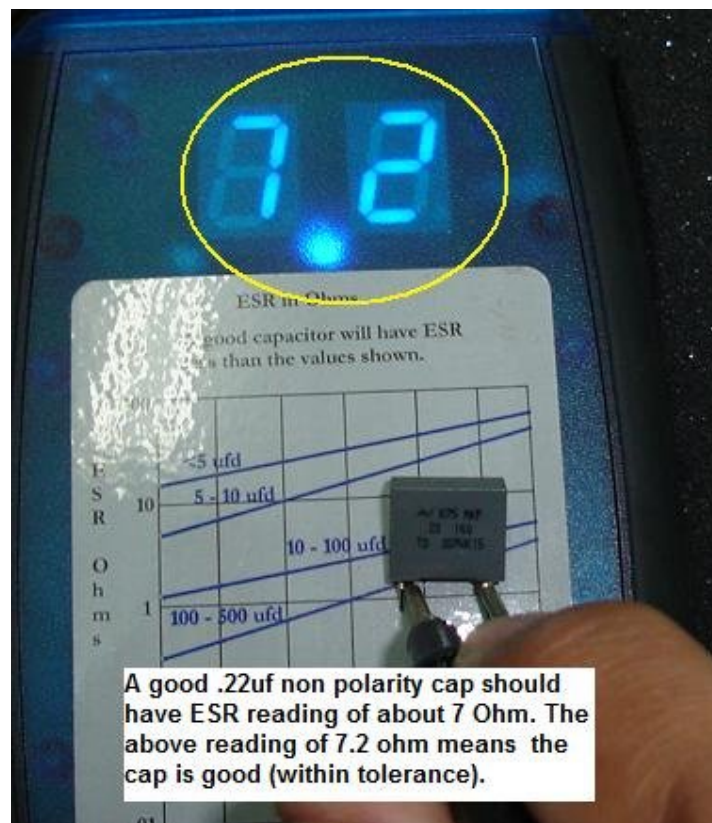
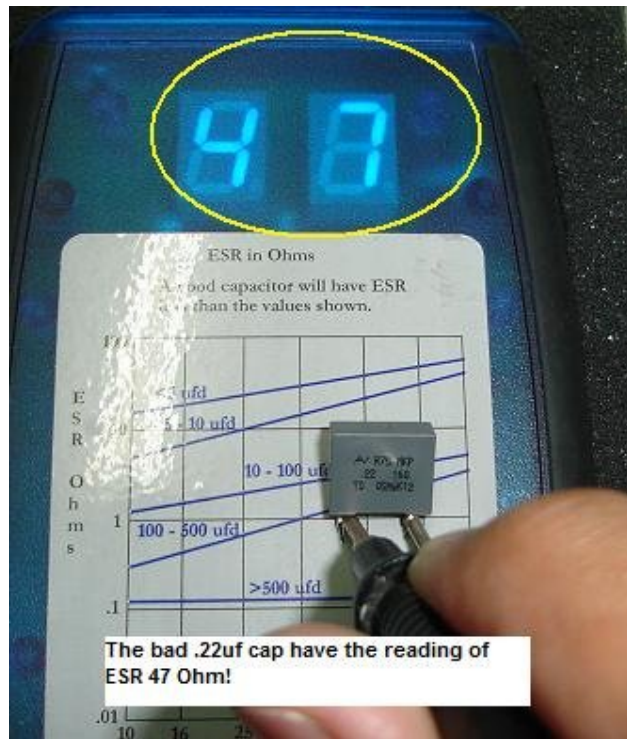


Another thing that arises in my mind was the transistor itself has problem that goes shorted and burnt the board or other components failure that caused the transistor to go shorted? I began to check the surrounding components that have relation with the burnt transistor and found the tuning capacitor ESR value have increased, one of the push pull transistor (C5707) shorted and the Pico fuse open circuit! Upon close inspection of the capacitor, I could see bulged at one side of the capacitor.



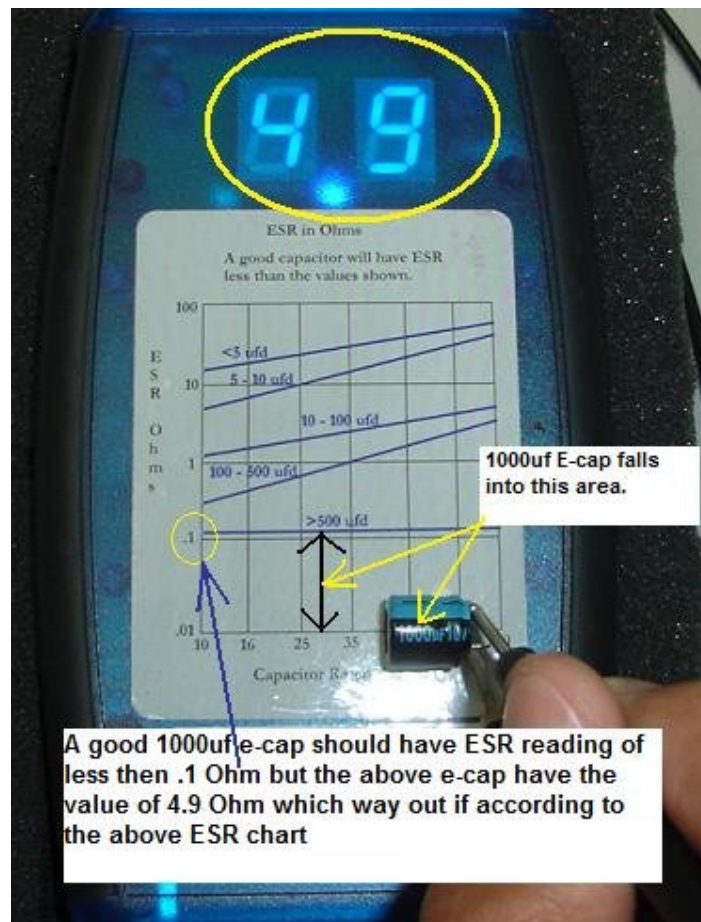


The value of this bad plastic film polyester type capacitor is .22 uf 160 Volts. If you test this capacitor with a digital capacitance meter, it would show about .2 uf which you may think is acceptable. If you didn't replace this capacitor, the newly installed transistor (FQU11P06) would surely burn again. For your information, any non polarity capacitors that have the value of or higher than .1uf (104), besides test it with digital capacitance and analogue meter, I will also use ESR meter to check the ESR value of the capacitors too. In the above case, the bad cap has 47 ESR Ohm and the good one has 7.2 ESR Ohm!

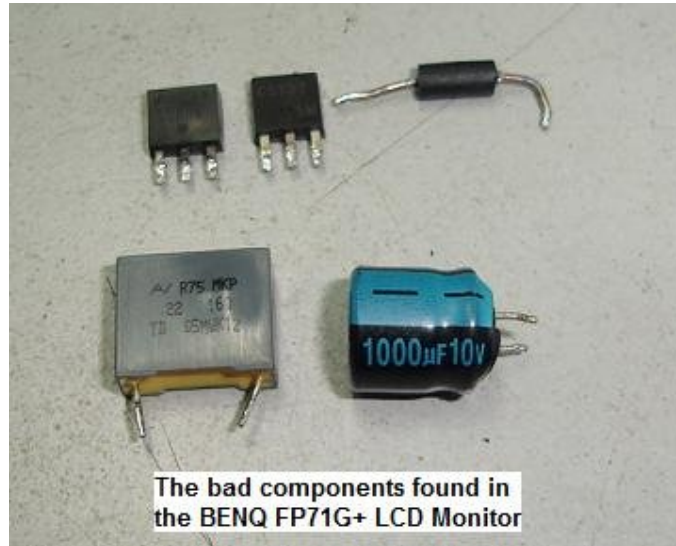


Do you know that, if you owned the Blue ESR meter, besides testing the electrolytic capacitor, you can also use it to test on the non polarity capacitor too? But the non polarity capacitor value must be around .1uf

or higher. The ESR meter can't test any value which is lower than that. If you do not have any ESR meter, I guess this is the time now to invest one to speed up your repair. With the help of ESR meter, I have solved lots of intermittent problem caused by capacitors. Some intermittent capacitor problem can't be revealed with the help from applying freezer and heat but surprisingly it can be discovered faulty by using ESR meter- this really amazed me!



Next, checking around all the circuit, I found another electrolytic capacitor have problem too. The faulty capacitor was located at the secondary output side and act as a filter to remove ripple along the output line. A good 1000 uf e-cap should have ESR less than .1 Ohm but the faulty one read 4.9 ESR Ohm! A new replacement of the Pico fuse, C5707 transistor, FQU11P06 FET, 1000uf 16Volts e-cap and .22uf 250V metallised polyester capacitor brought the LCD Monitor back to life again.



If you want to be an expert in LCD Monitor repair then get my eBook as this eBook plus **my support** will turn you into a Pro in LCD Monitor Repair.

Have a good day!

Jestine Yong

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