

Fluorescent ballasts anyone?

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Hi everybody!

Does anybody here know intimate fluorescent bulbs/ballasts details?

I'm trying to fix my pool ozon generator and it turned out to be much tougher job than I expected... First of all, that pool ozonator business is a big conspiracy :(My generator is made by some canadian company called Ultra Pure Water, model SPP70. It's less than 2 years old but already almost impossible to fix...

The generator itself is very simple – a length of aluminum profile with 2 Ozone Producing 40W 30" T5 Germicidal bulbs and corresponding ballasts and starters. The problem is my pool builders don't want to fix it suggesting I have to find those bulbs and replace them myself. OK, it didn't look like rocket science so I started digging.

First it turned out that it's almost impossible to find an Ozone Producing Bulb, everybody cares about our health so 99.99% of all germicidal bulbs available are proudly "No ozone", i.e. made with doped quartz blocking that 185 nm ozone producing line. Those who do have such bulbs charge for each one more than original weirdo with two bulbs were worth. And what's even worse nobody tells you what's their bulbs are – they are "Replacement bulb for Acme Aquatic model X.Y.Z-0121-x.y.z" and that's all.

After an entire day spent in the Net I learned that one company, Aqua-something, claims that they are using Ozone Producing bulbs in their sterilizers so I bought 2 of those of appropriate size and wattage and with a little bit of metalworking installed them into that "Ozone Generator".

To my astonishment they didn't start! I didn't check all the parts before installing them because I was 100% sure that that was bulbs that failed. As a matter of fact those two already non-working bulbs did have burnt filaments. But as it turned out two ballast also went south, they are both open. This is the simplest type of fixture, 2 wire magnetic ballast, a bulb with two filaments and a glow tube starter. Both ballasts look OK, no signs of overheating or burn marks. Just open ...

So I decided to replace that ancient circuit with a more modern 2-bulb ballast and that's where I've got confused and have to ask for a collective

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wisdom...

Those ozone bulbs are T5 size but they are not those new T5 sophisticated bulbs, they are listed as preheat type and their working current is 425mA. Now I'm trying to find a suitable ballast and I'm totally lost – it looks like there thousands of different ballasts out there and I don't know which one to choose :(

First of all, I didn't find what is the working current for regular T12, T8, T5 bulbs. What I was able to find were unconvincing. So does anyone know what is the working current of regular T12, T8, and T5 bulbs? It looks like those old T12 ones were working at 430mA so I should be able to use a 40W T12 ballast for those germicidal bulbs. Am I right or I'm missing something and bulb current is not enough and I should look for something else? Can I use a rapid start ballast or should I stick with the old preheat variety? Another problem is that its powered with 220V, not regular 120V. There are some 277V ballasts at Home Depot, will they work on 220V? Do those T5 germicidal bulb filaments work at the same voltage as T8 and T12, i.e. can I use e.g. T12 Rapid Start Ballast?

And one more question, how can one use a dimming electronic ballast? It has two separate grey wires for dimming so it seems to be that 0–10V type (Made by Prescott). I can't find what makes it 100% brightness, 0V or 10V? If I want to use it as a regular non–dimming ballast, should I short those grey wires, live them unconnected or feed them with 10V DC (as I understand polarity doesn't matter 'coz both wires are grey)?

Any information is highly appreciated...

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