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## Helpful hints and tip's : Lighting Setup: Dimmer and DMX Guide version 07/08

### **DMX Start Address Overview** (DMX fixture relates to Dimmers or smoke machine, strobe, lights etc)

This is the number which relates to getting the sliders on your desk working. For most simple setups, your DMX fixture should be set to 1. This will mean when you slide up the first channel on your desk, it will turn on the first channel on the fixture. If you want to add another DMX fixture, you will need to add a 'jumper lead' between the two or more DMX fixtures. This will be daisy chained 'out' of the first fixture 'into' the second fixture (using the xlr plugs). The second DMX fixture will then need to have it's 'DMX' start address set to the next available channel of the desk. If your fist DMX fixture is 12 channels, (and DMX started at 1), then the second DMX fixture, will need to have its DMX start address set to 13. (because this is the continuation after the first 12 channels of the first fixture) – this will mean as you slide up from 1-12 on your desk, it will operate the first fixture, then when you slide 13 onwards, it will operate the second DMX fixture etc. You can add as many DMX fixtures as your desk will allow, by simply daisy chaining out and in to your next DMX fixture).

**IMPORTANT**, Be careful about the amount of power your DMX fixtures use at any one time.

Read **The circuits / fuses keep on tripping** found on **Helpful hints and tip's : Basic problems**

The order your DMX Fixtures are 'Daisy chained together', doesn't necessarily mean that's how they need to be operated on the desk. Its best to make your 'chain' as short as possible, from one to the next closest fixture.

If using more than one DMX Fixture, know how many channels each fixture uses. It is possible to have several fixtures overlap if your DMX start addresses and the number of channels they use overlap. If your first fitting is 10 channels and set at 1. If you set your next fixture at 2 (should be 11). As you slide up channel 2 on your desk, it will switch on channel 2 of your first fixture and channel 1 of your second fixture. If your careful about your power usage, it may be suitable to have several fixtures with the same operation set to the same start address, i.e. moving lights, strobes, smoke etc. (but what ever is set to the same address, will operate in unison).

### **Setting DMX Address Using Binary Code / Counter**

Once you know where your Dimmers / DMX fixtures need to have their DMX start address set at, you then need to know how to set them.

For most dimmer packs, it is quite simple. These have counters, which you can manually set until you see the correct number, i.e 001 or 013 etc.

If your lighting fixtures have 'dip switches' This is a little more complicated. Each of the pins from 1-9 have a switch value, (pin 10 is often an 'option' function). When you have one or more dip switches set to on, their combined number is what your DMX start address is.

#### PIN SWITCH VALUE

1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	N/A



This picture shows the xlr plugs used for 'Daisy chaining between DMX fixtures



This picture shows the 'Dip switches'

Above, we can see that pin 1 = 1 and pin 4 = 8 etc. For example if we had a dimmer pack which uses 12 channels, then we are wanting to add a DMX smoke machine into the DMX circuit. The Dimmer would be set to 001 and the smoke machine would be set to 13 or dip switches 4, 3 and 1 switched to on (as together these add up to 13).

**Other examples** if you wanted a DMX start address set at :

16, you would only have pin 5 set to on. 18, you would have pins 5 and 2 on.

Thanks for taking the time to lean more about lighting control. Blessings Team I.T.L

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