



## **Anytronics Colour Desk CD01 user guide**

Anytronics CD01 and CD02 ColourDesks are controllers for integrated colour control systems which will allow synchronised colour changing of fluorescent, cold cathode neon, LED and any other dimmable light sources. They are particularly recommended for use in controlling systems using Anycolour digital fluorescent ballast fittings (DFBs). Whilst the CD01 has only one set of RGBY outputs, the CD02 will provide data for driving 16 such RGBY separate colour outputs. The CD01 is available in a desk mount version (AC001) or in a wall mount version (AC002).

### **Installation procedure overview**

#### **AC001/2**

1. Connect CD01 to Anycolour fluorescent fittings using cables with RJ12 connectors (as supplied with fittings).
2. Connect DMX output data to other DMX controlled light fittings and set appropriate DMX addressing.
3. Power up Anycolour fittings and check all are on.
4. Check that the CD01 unit is for correct supply voltage and connect to supply.

You should now have colour control !

ANYtronics Ltd  
Units 5/6,  
Hillside Industrial Estate  
London Road  
HORNDEAN  
Hants  
PO8 0BL UK

Tel : +44 (0) 2392 599410  
Fax : +44 (0) 2392 598723

Email : [sales@anytronics.com](mailto:sales@anytronics.com) / [sales@anycolour.com](mailto:sales@anycolour.com)  
Web : [www.anycolour.com](http://www.anycolour.com) / [www.anytronics.com](http://www.anytronics.com)

## Anytronics Anycolour Colour Desk CD01

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### Outputs

Anycolour 6 way (RJ-12) DFB data socket, for direct connection to Anycolour DFBs. This will drive to up to 15 Anycolour fluorescent fittings (10 DFBs on 220v supply)

DMX output via standard 5 pin XLR. To obtain the best colour effects from your choice of variable colour lighting, use the DMX addressing indicated below in order to use data optimised for your choice of light fitting:-

channels 1-4	:	R, G, B, Y linear output (for LEDs etc)
channels 5-8	:	R, G, B, Y linear power (for incandescents)
channels 9-12	:	R, G, B, Y cold cathode (for neon / argon etc)
channels 13-16	:	R, G, B, Y fluorescent

### Controls

Slider controls :-

Red, Green, Blue, Neutral colour level settings and master level control (all 0-100%)  
Colour cycle depth (0-100%) and period (10 seconds - 45 minutes) control  
or select period range ( 5 minutes - 24 hours) using internal jumper

Push button controls :-

Sequence select	:	one 3-way (RGB) and three 4-way (RGBY) colour cycles
Waveform select	:	Ramp, Sine and Peak modulation waveforms
Direction select	:	Forward, Reverse and Freeze control of colour cycle
Blackout	:	blackout all outputs

### Connections

Every Anycolour DFB is packed with a 2m data cable and a 2m IEC to IEC mains lead. Every Colour Desk is packed with a 5m data cable, its own mains lead and a bare ended IEC mains lead for connecting the supply to the first Anycolour DFB in a chain.

**Data** : If using an Anycolour DFB as the light source, link the DFB data socket on the desk to any of the data sockets on any of the fluorescent fittings, using the 5m connection cable supplied. Further DFBs can be connected by linking one of the two other data sockets on the light fitting to any of the sockets on the extra DFBs. The desk will drive a maximum of 15 DFBs in this way. (Note lower limit of 10 DFBs on 220v supplies.) Do not link two desks together through a DFB chain!!

If using DMX controlled lighting, connect data from the 5 pin XLR provided on the Colour Desk to your lighting control fittings and set the DMX addressing according to the type of lighting in use (see 'outputs' above). Use good DMX connection and termination practice. Now connect a suitable mains supply to your lighting appliance.

**Supply** : If using DFBs, connect a suitable mains supply to them using the IEC connection leads provided. Note the IEC input and output sockets provided on the DFBs for ease of interconnection, but also that no DFB should be used to supply power to more than nine further units.

Connect Colour Desk to a suitable mains supply using the mains cable provided.

## Getting Started

Set RGBY sliders to 20%, Depth and Speed to 0% and Master to 100%, then power up equipment. The levels of the Red, Green, Blue and Yellow should be individually controllable from the relevant slider. If the controls appear to be mixed up, remove power from the system and recheck the DMX addressing in your system. Keep the level of Yellow slider low. You should be able to produce most imaginable colours by adjusting the relative levels of Red, Green and Blue.

Less saturated colours (ie more subtle pastel shades of lighting) can also be created by raising the level of the fourth 'neutral' colour (Yellow). Precise control of saturation and hue can be achieved using these four controls to create a wide range of static coloured lighting effects.

The Master level control will allow you to raise and lower the level of illumination from the light source, whilst keeping the same colour effect. If the colour tends to vary as you adjust this Master level you will probably find that you are using the inappropriate DMX output data for the light source concerned (ie wrong dimming curve), or that the colour sources have not been correctly balanced and matched as they have been in Anycolour fluorescent fittings.

Pressing the right hand 'blackout' button should shut off the lights, and this 'shut down' mode is indicated by the flashing LED above the control. Pressing the button again will extinguish the LED but re-enable the lights.

## Dynamic Effects

Once you have experimented with the variety of static colours available from these controls, you are ready to try out more dynamic lighting effects. Set up your favourite colour using the controls previously described, and push the colour cycle 'Period' slider to the 100% or 10 second setting. If you now slowly raise the level on the cycle 'Depth' to 10 or 20%, you should see cycles of colour change repeating every 10 seconds. If this is a little fast, reduce the level on the 'Period' slider to slow it down. Increasing the level of the 'Depth' control will produce larger and larger changes in hue until sweeping and dramatic changes in colour are produced. It is probably a good idea to increase the period to enjoy the range of colours produced. The calibrated Depth and Period controls allow precise control of the rate of change of hue and of the overall subtlety of the effect, whilst the four colour controls allow the colour cycling to be moved from one part of the colour spectrum to another to achieve an overall required effect. Colour cycling can be removed at any time by reducing the Depth to 0%.

The cycle can instead be frozen or reversed by repeated pressing of the direction button. If both LEDs are lit, then the cycle is frozen at the current colour. Another press will restart the colour cycling, the direction of the cycle being indicated by the upper or lower LED.

Colour Desk can produce three different shapes of colour cycle modulation, creating precisely controlled trajectories through colour space. For colour cycles which linger at the extremes of hue press the wave form button once to light both LEDs and select a sine modulation. For colour cycles which spend more time meandering through subtle shades with an occasional dramatic colour peak, press the waveform button twice to illuminate the lower LED and select the peak modulation waveform. Each push of this button steps through to the next of the three available waveforms.

## Sequence Effects

The default RGB(Y) setting of the left hand push button provides the best control of hue and colour saturation levels during cycling. In this setting the hue is cycled using the modulation of the RGB levels, whilst the saturation depth of the colour is controlled automatically using the fourth neutral colour.

By pressing the left button, four colour sequences (or chases) which provide dramatic and interesting colour effects can be selected instead. The central colour about which the colour will cycle is controlled by the settings of the four colour level controls as before, with the depth and period of the colour cycles set by the corresponding controls. Different intermediate colours are produced by the three different cycle patterns available, and the direction of the cycle and choice of modulation waveform are also selectable using the push button controls.

After a little practice you should be able to produce static or dynamic colour lighting effects to match any environment or occasion. Happy colour cycling!