Cromatix Sequencing DMX Controller

Product Datasheet

Key Features

- A standalone, ruggedised DMX/SPI sequencing controller
- Controls any RGB DMX or SPI light
- Six built-in colour programmes
- DMX override feature allows DMX input to control lights
- SPI output optimised for the HL6803 LED driver IC
- Convenient flange mounting
- IP44 rated for mounting in a garden shed or garage

Electrical Characteristics

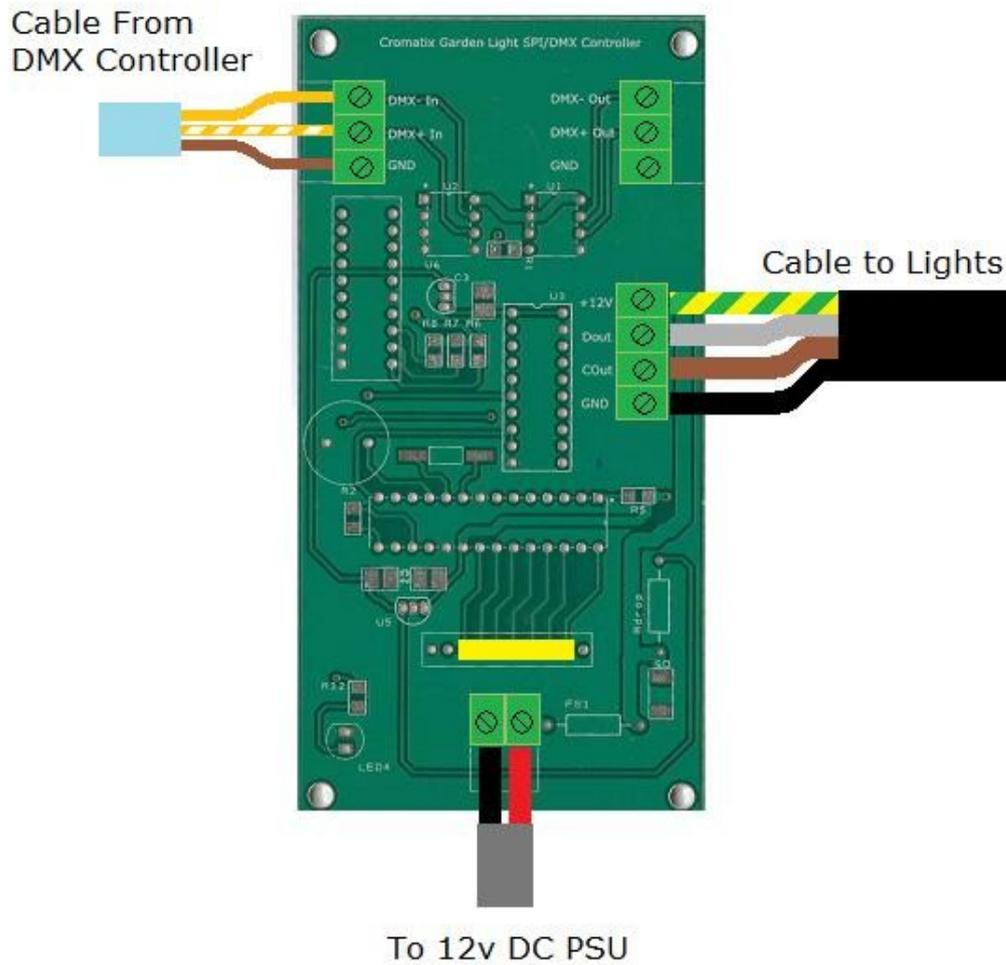| Recommended Operating Voltage	Typical Operating Current	Typ Operating Power (W)
9 - 12vdc	120mA	1.5W

Connection Details
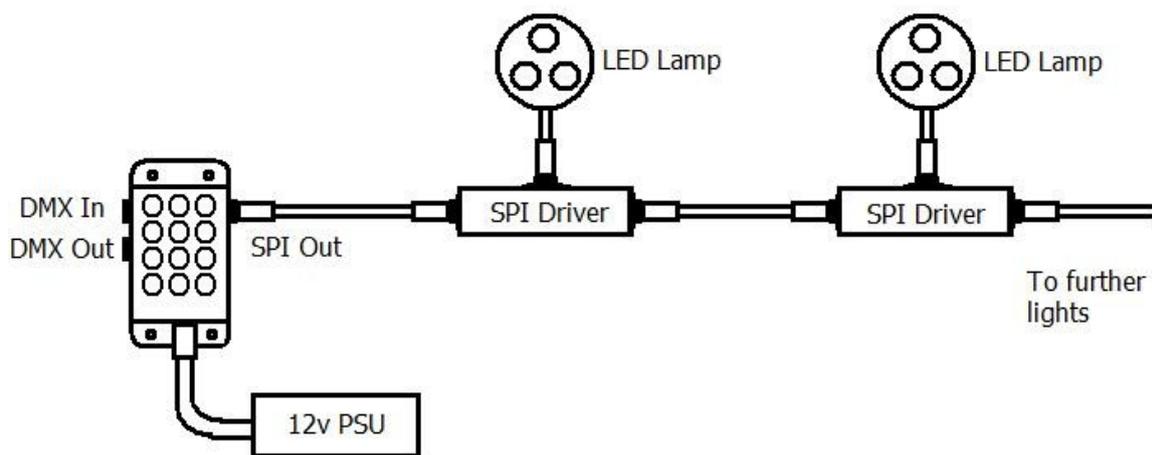
The controller is IP44 rated so can be mounted in a shed or garage. It must not be mounted in a position where it is likely to get wet.
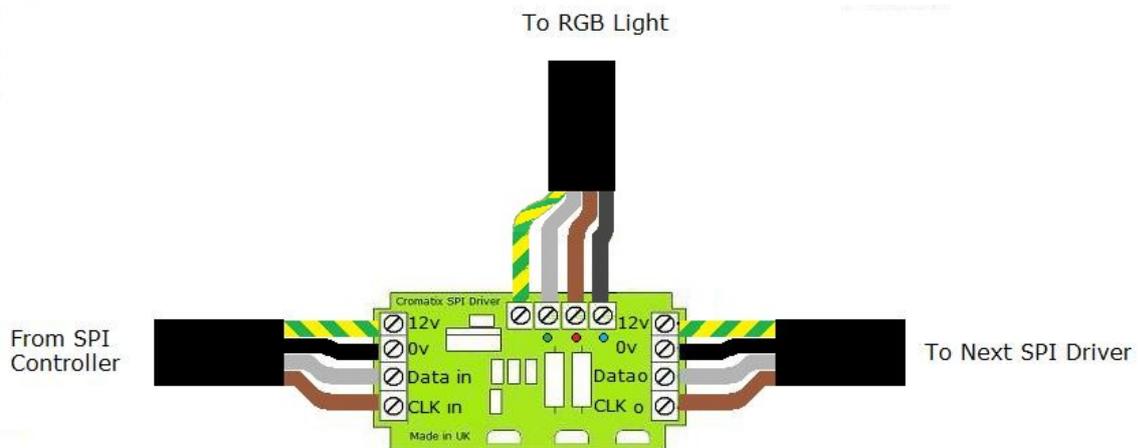
When supplied as part of a kit, the controller will be supplied with the appropriate cables. SPI lights have the advantage that both power and data is supplied via a 4 core cable.

The maximum length of cable between the controller and the first light is 5m, as is the maximum length between lights. The LED lamp cable may be extended upto 20m.

Wiring The Controller (note the DMX input is optional)

Cable From
DMX Controller

Cromatix Garden Light SPI/DMX Controller

DMX- In
DMX+ In
GND

DMX- Out
DMX+ Out
GND

+12V
Dout
COut
GND

Cable to Lights

To 12v DC PSU

Wiring The Lights (12v lamps only)

To RGB Light

From SPI
Controller

Cromatix SPI Driver

12v
0v
Data in
CLK in

Made in UK

12v
0v
Datao
CLK o

To Next SPI Driver

Special Wiring For 24v Systems

Power Supply Wiring

230v
Mains

PUC-V06C
12v LED Driver

+24v

PUC-V06C
12v LED Driver

0v

24v Lamp Connections

To 24v Lamp

From SPI

To Next SPI Driver

Crossover SPI Driver

12v

0v

Data in

CLK in

12v

0v

Data o

CLK o

Made in UK
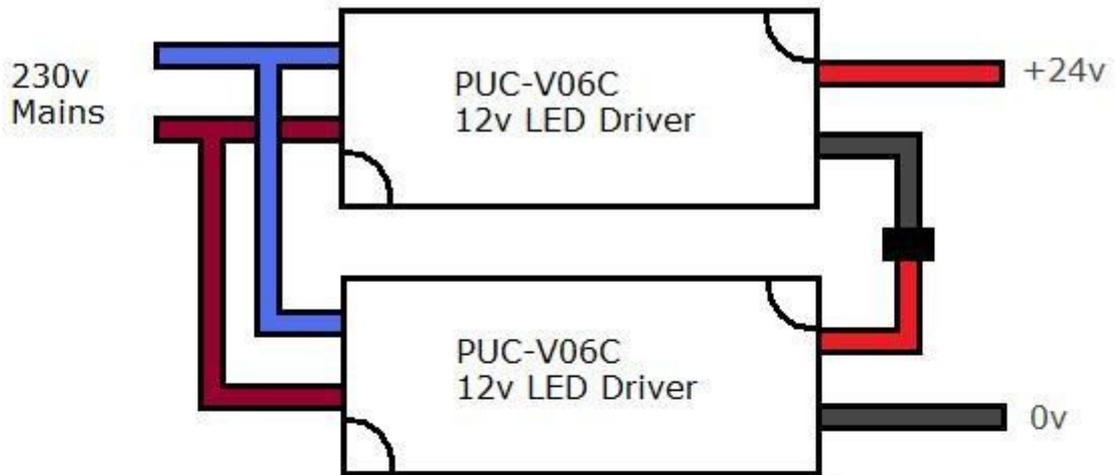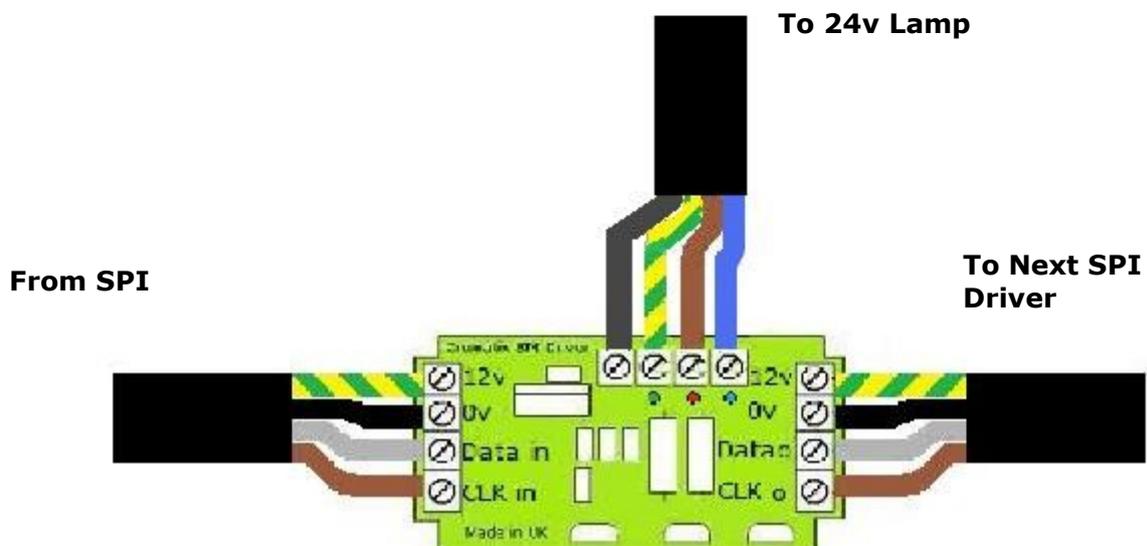
Special Considerations For Large Systems

The SPI system is virtually infinitely expandable but it is important that volt drop is measured and power refresh points are set up. This is often conveniently done at the end of the chain, where the spare cable gland can be used to feed a 12v refresh. If there are more than four lights in the chain, the lights must be fed directly from the power supply as there is a fuse inside the DMX-SPI converter that cuts out at 4A.

Testing The System

Assuming everything has been wired correctly, by changing the scene the lights will follow the pattern. Scenes are typically red, green, blue, colour change and chases. Test the system by making sure each light is the same (on static colours) and that chases flow in a logical manner. As each light receives its data from the previous one in the chain if there is a break in the cable, none of the lights further down the chain will respond to the controller.

Sealing Up The Waterproof Boxes

Once the system is fully tested and the installer is happy that everything is working perfectly it is highly recommended that the junction boxes are 'potted', ie the PCB covered in a waterproof encapsulant. This is widely available from electrical wholesalers

DMX Addressing

The controller continuously monitors DMX channel 1. When it detects a change, the controller switches to DMX mode until a button on the keypad is pressed.

Each SPI driver automatically allocates itself 3 DMX channels. The DMX allocation for a 3 light system will be:

Light No	DMX Address
1	R: 2 G: 3 B: 4
2	R: 5 G: 6 B: 7
3	R: 8 G: 9 B: 10

Standalone Modes

Mode	Description
Static	Selects static colours the same for all lights. Keep pressing for new colours
Colour Change	Selects a colour change programme for all lights together. Press the red button for warm colours and the blue for cool. To clear the colour setting press the on/off button twice. To speed up or slow down the sequence press and hold the speed + or - button until it beeps.
Flow	This sets a moving rainbow of colours starting that the first light and ending at the last. To speed up or slow down the sequence press and hold the speed + or - button until it beeps
Twinkle	Selects a random flowing effect ideal for shining at snow-laden scenes
Random	Applies a random colour to each light. Keep pressing for new colours
Snap	A sequential effect that feeds a new colour into one end of the chain and keeps it moving along until a new colour is fed in. To speed up or slow down the sequence press and hold the speed + or - button until it beeps.
Fire	Applies a random fire type effect across the sequence of lamps.

Not Quite What You're Looking For?

At LED Lighting products we understand that each user's requirement is different. If you have specific requirements our software engineer can help you with this. Please contact richard@ledlightingproducts.co.uk with details of your specific requirements.

Warranty

36 months unconditional from date of purchase. For product support, please contact info@ledlightingproducts.co.uk

Product Disposal

When you eventually decide to update or upgrade this product, do not dispose of it with your normal household waste or at a local amenity tip. You should either take it to a recycling centre or return it to the retailer from which you bought it where they will arrange for it to be recycled.