
Cromatix DMX-MRG1 DMX Decoder / Merger

Product Datasheet



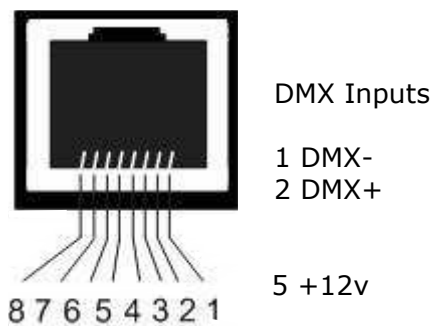
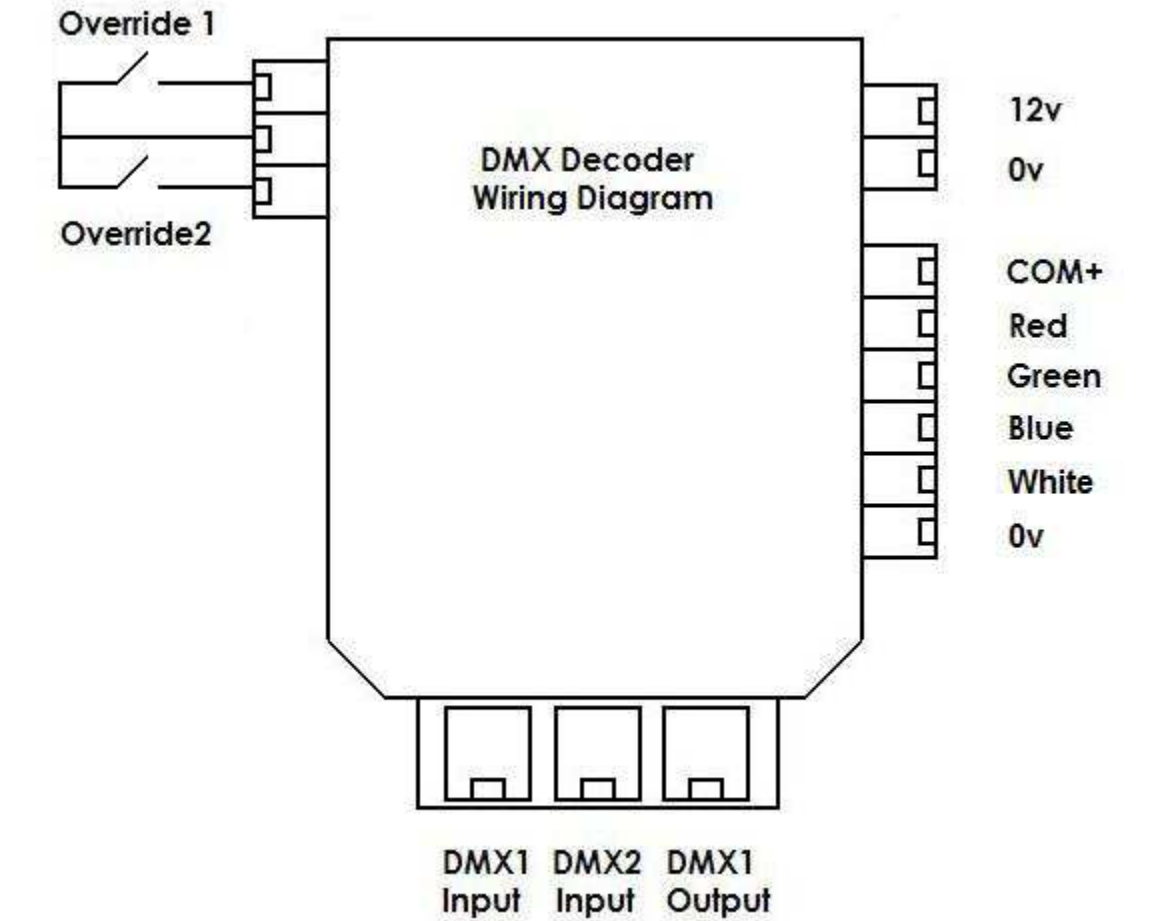
Key Features

- Decodes 4 DMX Channels from two sources
- Automatically switches between DMX1 and DMX2 inputs
- Routes the appropriate DMX input to DMX out
- LED indication of DMX input selected
- Ideal companion to RGB, RGBW and White LED Lights
- Decodes DMX512 - 1990
- Convenient DIN Rail mounting
- 12v Input
- DMX Merge Option (DMX2 Input)
- Buffered DMX Out Signal (Mirrors DMX1 Input)
- Flicker-Free TV Ready > 400Hz Modulation
- Total Max Power Output: 100W
- Switch Override Inputs
- RJ45 Connections For DMX
- 5mm Pluggable Terminal Blocks for Easy Connection

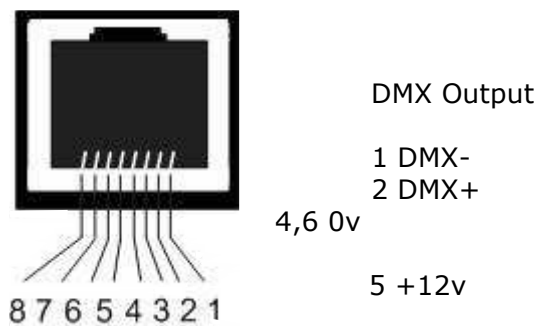
Electrical Characteristics

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

Connection Details



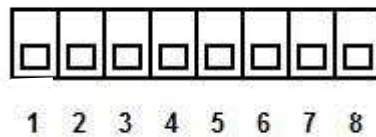
4,6 0v



4,6 0v

Selecting The Base Address

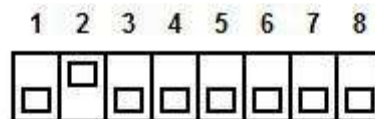
The DMX Decoder gets its base address from the Switch marked 'Base Address' on the left hand side of the unit.



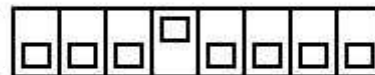
The switch is encoded in binary as follows. The base address is formed by adding up the total binary numbers represented by each switch position thus:

| Switch Position | Number |
|-----------------|--------|
| 1 | 1 |
| 2 | 2 |
| 3 | 4 |
| 4 | 8 |
| 5 | 16 |
| 6 | 32 |
| 7 | 64 |
| 8 | 128 |

Base Address = 2



Base Address = 8

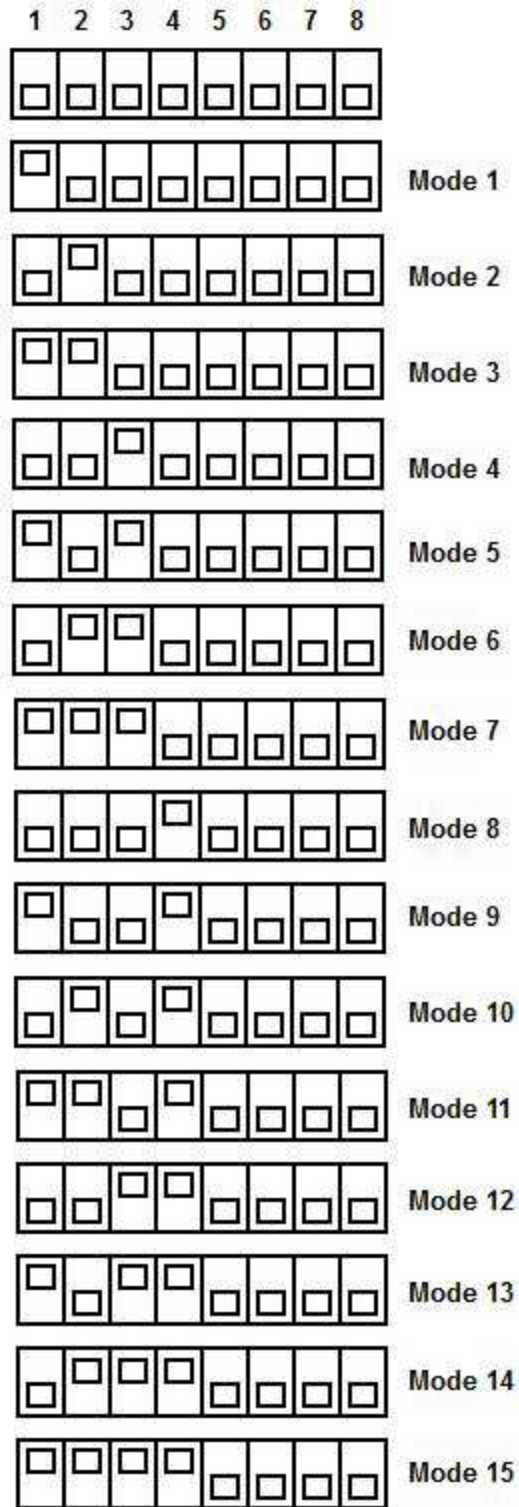


Base Address = 1+2+16 = 19



Selecting The Operating Mode

The DMX Decoder derives its operating mode from the Switch marked 'Options' on the left hand side of the unit. The modes are selected as follows:



Operating Modes

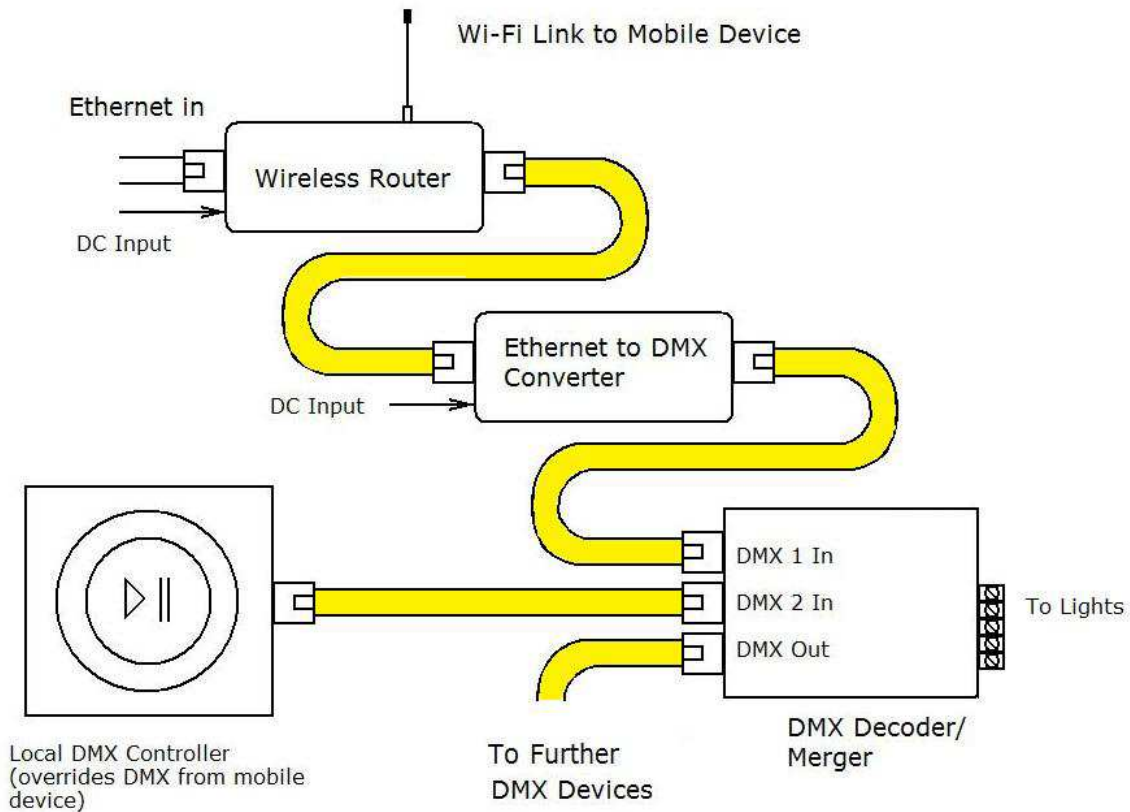
| Mode No | Description |
|---------|---|
| 1 | Standard RGB DMX decoding with merge facility |
| 2 | Standard RGBW DMX decoding |

Description of The DMX Modes

Mode 1: Standard DMX decoding with merge facility

This is the mode used for RGB decoding where two sources of DMX are present. This is typical for systems that are operated by mobile devices such as iPhones but where there is also a wall controller.

Typical Wiring Configuration



How the Merger Works

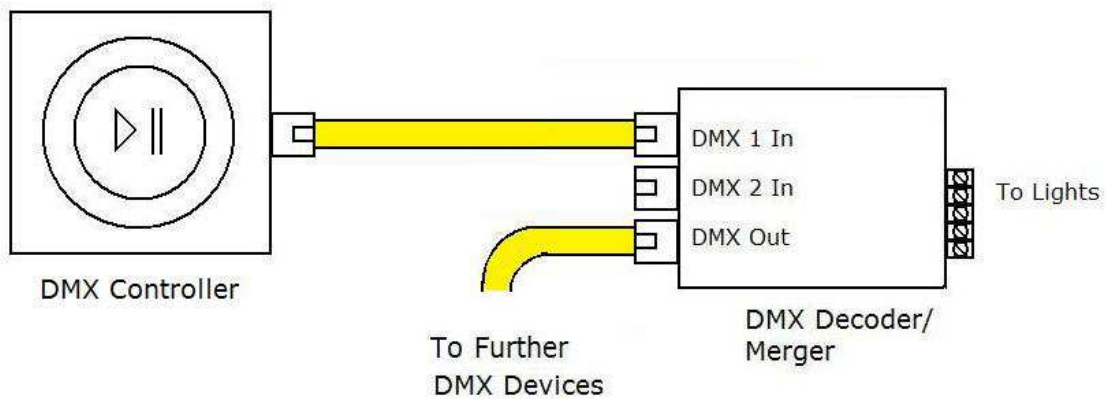
The decoder/merger decides who has control in the following way. The default source is DMX1. The LED next to DMX1 input will be illuminated and the DMX Out mirrors the DMX1 input. The 4 channels of decoded DMX is presented onto the output connector in four 8 bit pulse-width-modulated, common anode form. The 5th DMX channel is the control channel, this is how the unit decides which input to present to both DMX Out and the output PWM Channels.

All the time that this is happening the unit is also decoding DMX2 input. IF IT SEES A CHANGE on the control channel (the 5th 'slider') it puts DMX2 in charge, routes DMX2 input to the DMX Out and presents the 4 DMX channels to the PWM Output connector. The LED indicator also moves to DMX2 input as a useful indication.

The unit now looks for a change on DMX1 control channel, and so on.

So, to make the unit work properly, each scene programmed requires the 5th channel to be different to each other scene. The actual value is unimportant. This is the same for both DMX inputs.

Mode 2: Standard DMX decoding



The decoder/merger decodes DMX to the 1990 standard. The channel assignment is as follows:

- Base Address - Red
- Base + 1 - Green
- Base + 2 - Blue
- Base + 3 - White

The decoder/merger ignores anything connected to the DMX2 input.

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 discuss this with you. Please contact richard@ledlightingproducts.co.uk with details of your specific requirements.

Warranty

12 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.