
Cromatix DMX-MRG1 DMX Decoder / Merger / Standalone LED Controller

Product Datasheet



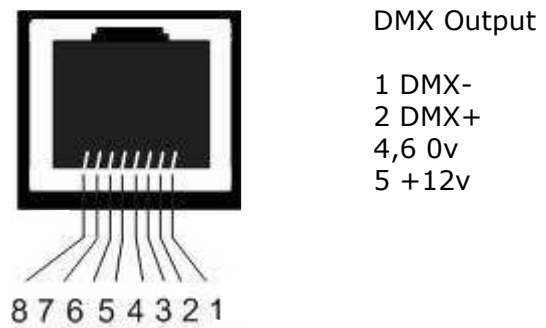
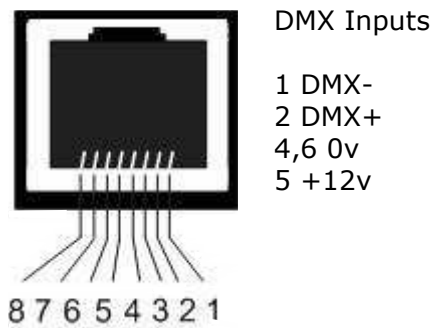
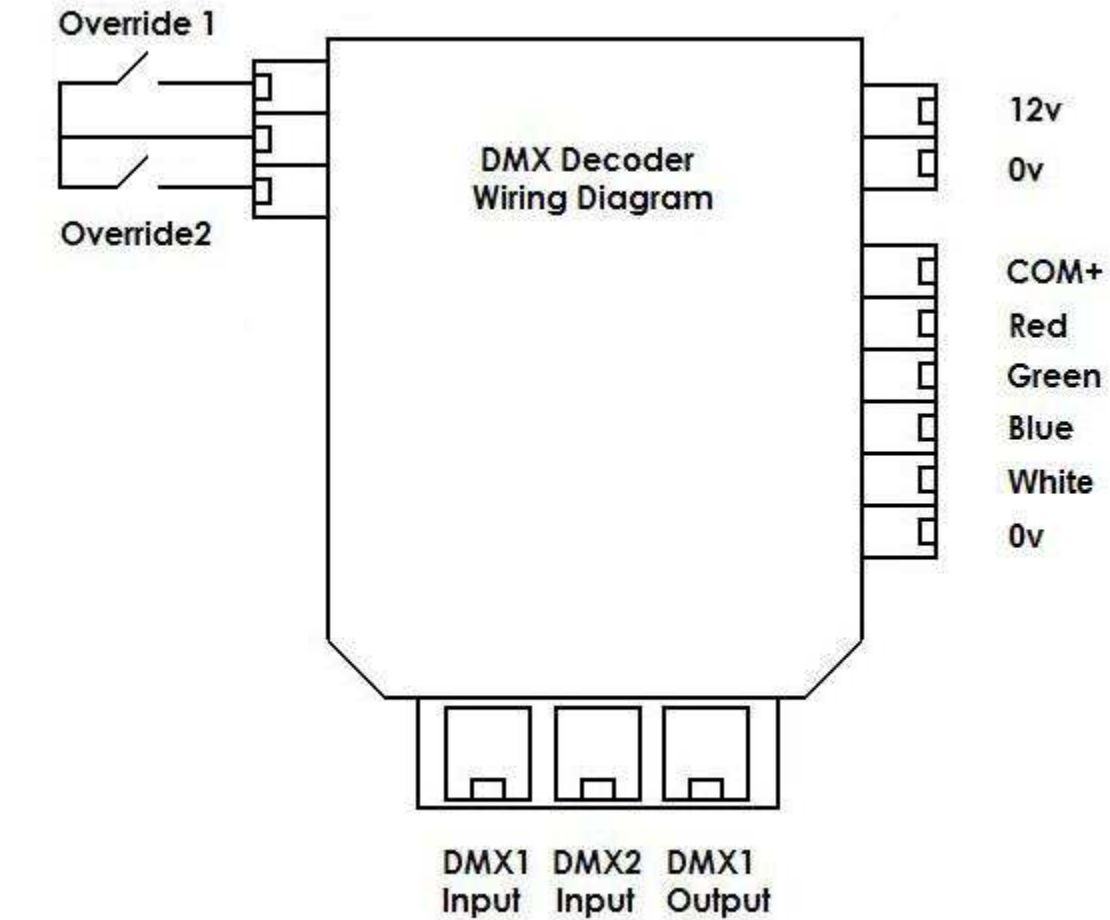
Key Features

- Decodes 4 DMX Channels
- 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

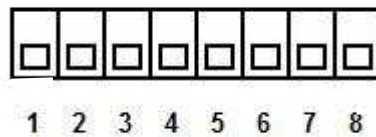
Recommended Operating Voltage	Typical Operating Current	Typ Operating Power (W)
9 - 24vdc	120mA	1.5W

Connection Details



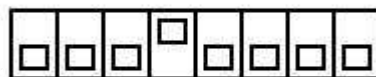
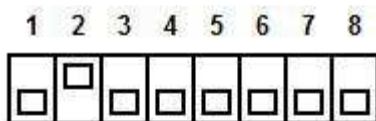
Selecting The Base Address

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



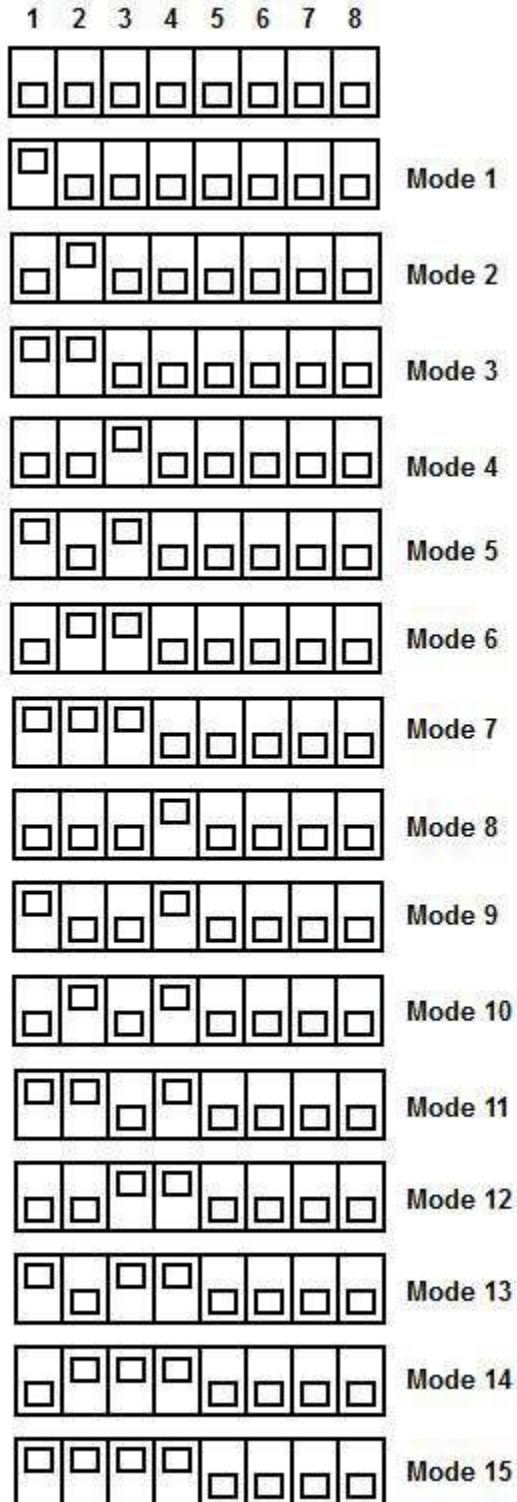
The switch is encoded in binary as follows. The base address is formed by adding up the total binary numbers represented by each switch position thus:

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



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

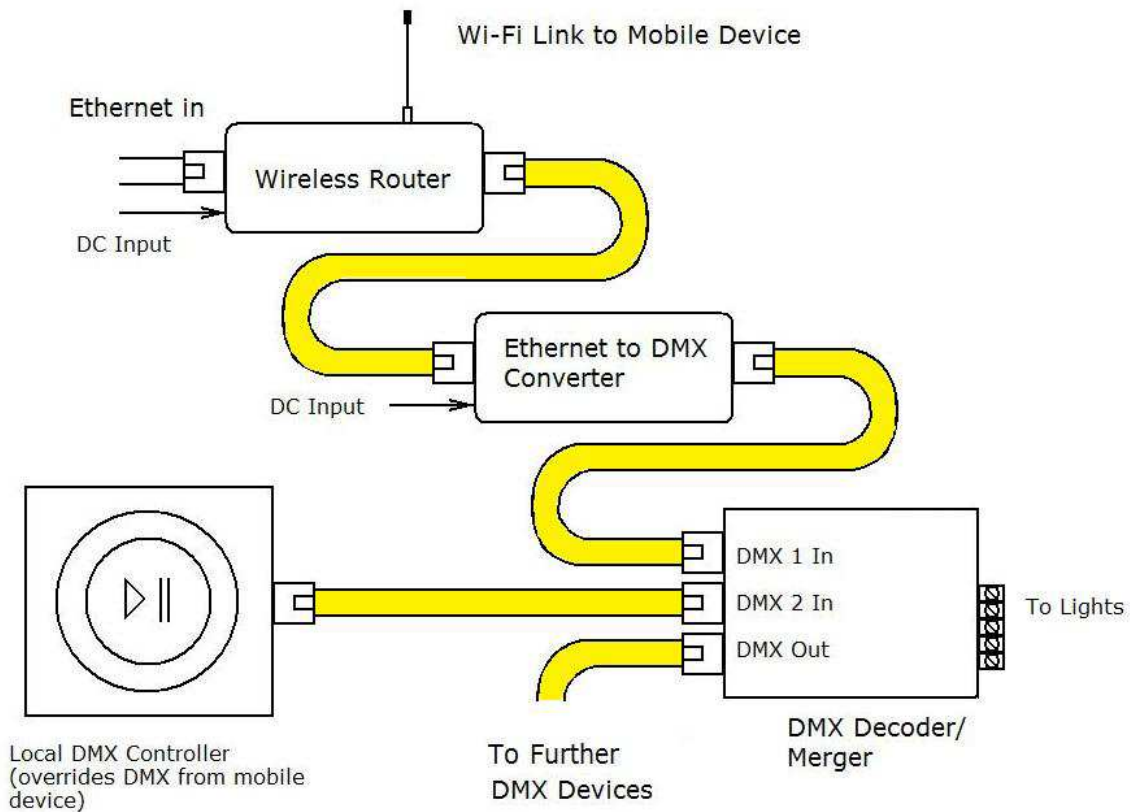
Mode No	Description
1	Standard RGBW DMX decoding with merge facility
2	Standard RGBW DMX decoding
3	DMX White Lighting with switch override
4	
5	
6	
7	Standalone mode - Simple RGB Controller

Description of The DMX Modes

Mode 1: Standard DMX decoding with merge facility

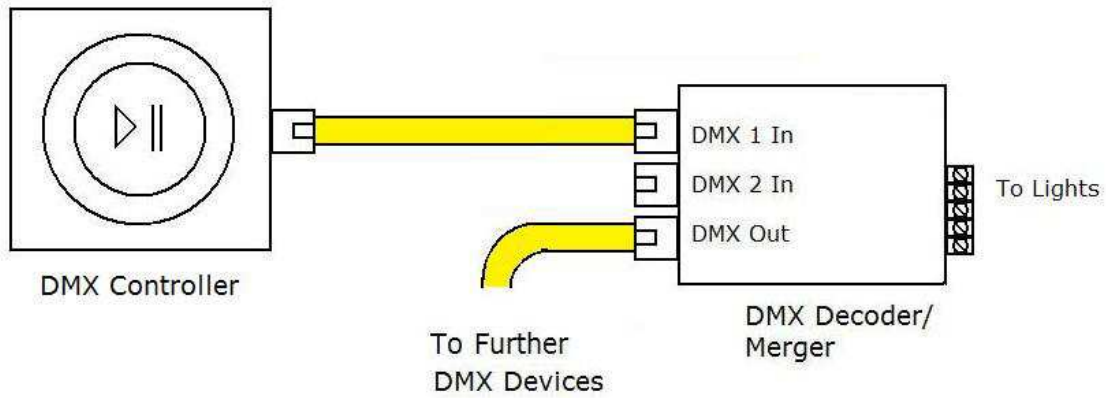
This is the mode used for RGB or RGBW decoding where two sources of DMX are present. This is typical for systems that are operated by mobile devices such as iPhones but where there is also a wall controller.

Typical Wiring Configuration



The decoder/merger decides who has control in the following way. The default source is the iPhone app. Changing the sliders or colour wheel controls the lights, and the wall controller has no impact. The lights can change colour, brightness, be colour changed or switched off, all by the iPhone. HOWEVER, if the DMX decoder/merger detects that the user has touched the wall switch, then the switch takes over. The person using the switch now has total control over the lights in that room. The iPhone is ignored. In order to get control back to the iPhone the user has to grab the 5th slider and change its setting. This now gives control back to the iPhone.

Mode 2: Standard DMX decoding

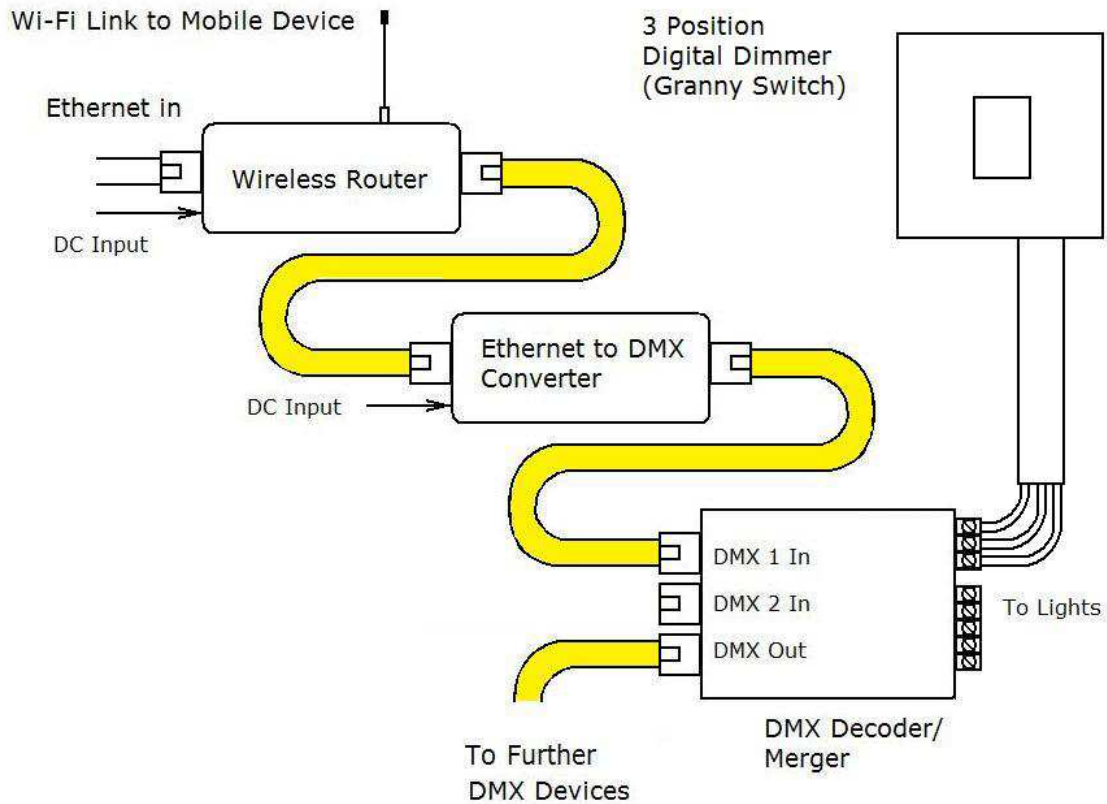


The decoder/merger decodes DMX to the 1990 standard. The channel assignment is as follows:

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

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

Mode 3: White DMX decoding With Switch Override



This is the most popular mode for LED lighting installations. This is hugely popular for both standalone white lighting and mixed systems with a multi-zone DMX controller 'in charge' but where the client requires local control via a standard looking switch. A typical scenario is where the client demands iPad control of the lighting installation, or via a home automation system but also wants a standard switch in the room that will override the background system.

How It Works

The system default is the background system, ie the iPad system. However, if the decoder detects that the local switch has been touched then it takes control. The switch actions are as follows:

Switch Action	Effect
Short Press Up	Lights ON at previous dim Level
Long Press Up	Lights dim up from previous dim Level
Short Press Down	Lights OFF
Long Press Down	Lights dim down from previous dim Level

The background control system regains control by changing the control channel. This is easily achieved by either moving a slider on the iPhone app or building this into the Nicaulaudie software.

Mode 7: Standalone mode - Simple RGB Controller

This is wired with the override switch as above but with RGB lights connected to the light output. This mode ignores the DMX inputs. The switch function is as follows:

Switch Action	Effect
Short Press Up	If the lights are off: Lights ON at previous dim Level. If the lights are on the colour changes to the next one in the sequence (see below)
Long Press Up	Lights dim up from previous dim Level
Short Press Down	Lights OFF
Long Press Down	Lights dim down from previous dim Level

The lighting sequence is red, green, blue, magenta, orange, cyan, white, colour change fast, colour change slow. Please note that RGB modes do not dim.

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.