

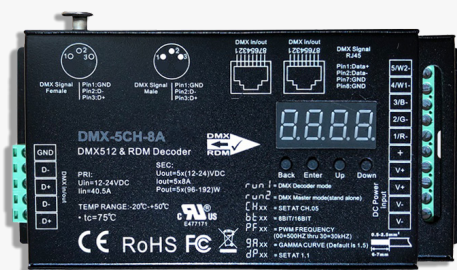
DMX512



5-Channel Decoder



**5 year
Warranty**



Product Specifications

Input Voltage	12-24V DC Constant Voltage
Output Power	480W (12V), and 960W (24V)
Output Current	8 amps / 5 channels
DMX Control System Type	DMX512
Port Options	XLR3, RJ45 and DMX screw terminals
Ambient Temperature	-4°F to 104°F (-20°C to 40°C)
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
IP Rating	IP20: indoor, dry location
Dimensions	6.5" x 2.8" x 1.5" (164 mm x 73 mm x 38 mm)
Weight	0.85 lbs (0.38 kg)
SKU	DMX-5CH-8A

Under Controller Mode

- 8 levels of brightness
- 32 built-in programs for RGB static and dynamic patterns
- Different speed levels and individual channel control

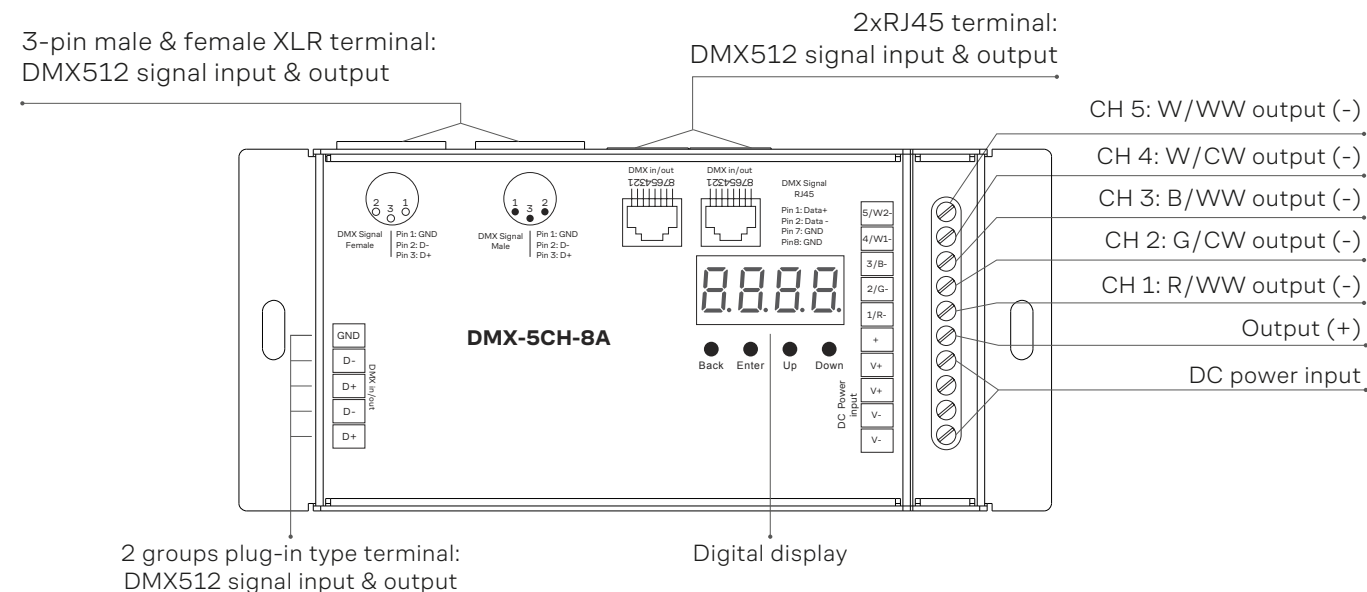
Under Decoder Mode

- Decoder detection, DMX address setting, and decoder information display functions
- Address up to five channels
- PWM output frequency setting
- PWM ratio frequency setting
- Optional decoding modes, brightness adjustments, Gamma-dimming curve values setting

Product Features

- High-end DMX512 & RDM LED Decoder
- Controller mode available for stand-alone RGB control
- User-friendly digital display
- Durable metal casing
- 8 amp, 5-channel constant voltage output
- Multiple data port options: XLR3 ports, RJ45 ports, and screw DMX terminals.
- Compatibility with DMX512, DMX512 (1990), DMX512-A and RDM V1.0 (E1.20 - 2006 ESTA Standard) protocols
- RDM bi-directional communication function allowing for real time remote monitoring
- Short circuit protection

Mechanical Drawing



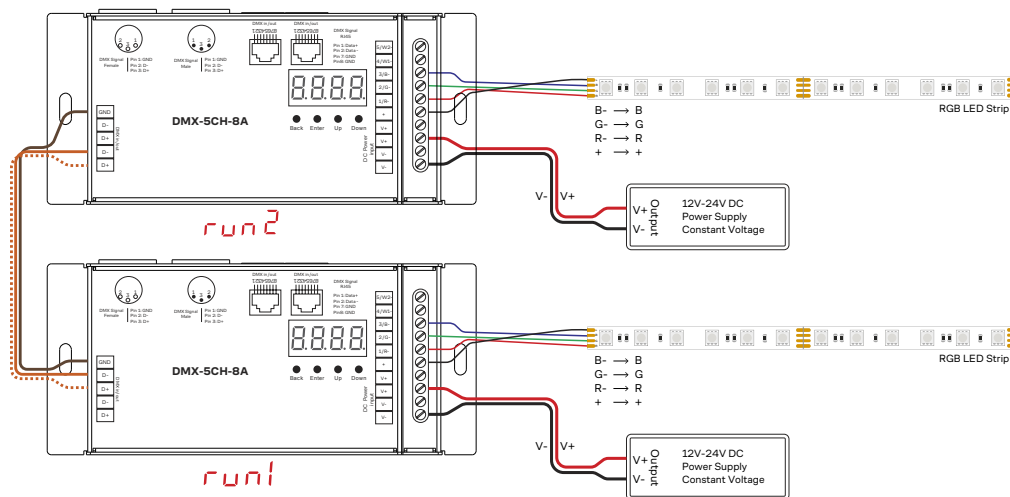
Controller Wiring

1. Double-check that your power supply matches the voltage of your LED lights, and that the power supply is unplugged.
2. Connect the LEDs and power supply using the screw terminals. The power supply's positive and negative wires should be connected to "V+" and "V-" terminals under the DC power input, respectively. The LED strip's positive wire should be connected to the "+" terminal, and the LED strip's negative wires to the R, G, B, W1, or W2 output channels.
3. Keep in mind that the controller can be wired as a Controller or as a Decoder. Please see the diagram below.
4. Power up the power supply.
5. Connect the DMX input and output (if applicable) to any of the input/output ports.

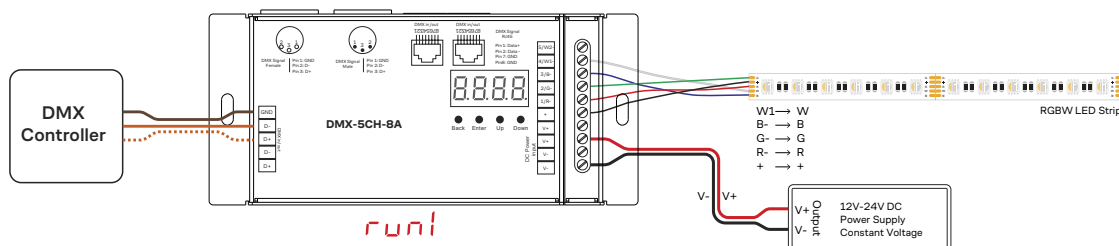
Note: Do not send DMX signals to the decoder while it is powered down.

Wiring Diagram

Controller Mode (RGB only)



Decoder Mode



Operation

Before you change any other settings, please determine whether you would like the device to be in Controller or Decoder mode. To select the mode, use the Down button to scroll through the settings until you read “run1” or “run2”, and press Enter. Use the Up or Down buttons to change between the modes, select “run1” to use the DMX decoder in the DMX decoder mode, or “run2” to use in the DMX controller mode, then press the Back button. If you wish to change between the modes, please reboot.

run1 = DMX Decoder Mode

run2 = DMX Controller Mode



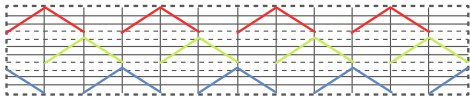
DMX Controller Mode

The standalone mode of the unit features both pre-programmed modes as well as individual channel control for RGB light fixtures. These are the functions available:

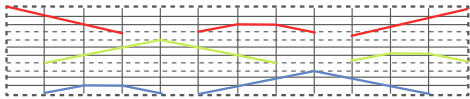
Pre-Programmed RGB Modes

P.XXX Controls a total of 31 programs. The static and dynamic modes use the first three channels and assign values based on the assumption that Channel 1 is controlling red, Channel 2 is controlling green, and Channel 3 is controlling blue. Press Enter and then Up and Down to select between preset modes.

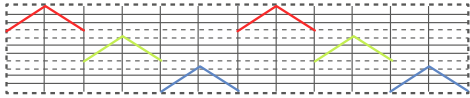
- 00-** RGB off
- 01-** Static red
- 02-** Static green
- 03-** Static blue
- 04-** Static yellow (50% red+50% green)
- 05-** Static orange (75% red+25% green)
- 06-** Static cyan (50% green+50% blue)
- 07-** Static purple (50% blue+50% red)
- 08-** Static white (100% red+100% green+100% blue)
- 09-** Any two colors of RGB mix fade, changing diagram as follow:



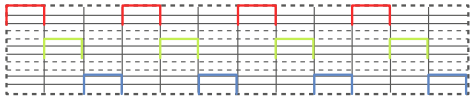
- 10-** RGB colors mix fade, changing diagram as follow:



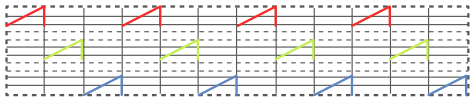
- 11-** RGB FADE OUT & FADE IN, changing diagram as follow:



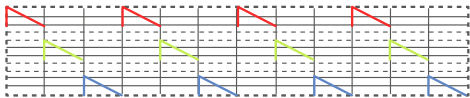
- 12-** RGB jump changing, changing diagram as follow:



- 13-** RGB FADE IN, changing diagram as follow:



- 14-** RGB FADE OUT, changing diagram as follow:



- 15-** RGB 3 colors strobe
- 16-** White color strobe (100% red+100% green+100% blue)
- 17-** 7 colors FADE OUT & FADE IN (red, orange, yellow, green, cyan, blue, purple FADE OUT & FADE IN)
- 18-** 7 colors jump changing (red, orange, yellow, green, cyan, blue, purple jump changing)
- 19-** 7 colors strobe (red, orange, yellow, green, cyan, blue, purple strobe)
- 20-** Red-white (100% red+100% green+100% blue) circle gradual changing
- 21-** Green-white (100% red+100% green+100% blue) circle gradual changing
- 22-** Blue-white (100% red+100% green+100% blue) circle gradual changing
- 23-** Red-orange circle gradual changing
- 24-** Red-purple circle gradual changing
- 25-** Green-yellow circle gradual changing
- 26-** Green-cyan circle gradual changing
- 27-** Blue-purple circle gradual changing
- 28-** Blue-cyan circle gradual changing
- 29-** Red-yellow-green circle gradual changing
- 30-** Red-purple-blue circle gradual changing
- 31-** Green-cyan-blue circle gradual changing

Brightness Control

B.XX

This option controls the brightness of the pre-programmed scenes. Press Enter and then Up and Down to select a brightness level between 1 and 8, with 8 being the brightest.

Speed Control

SP.X

This option controls the speed of the programmed scenes. Press Enter and then Up and Down to select a speed level between 1 and 9, with 9 being the fastest.

Individual Channel Control

00.00

If you don't want to use a pre-programmed scene, you can also use the controller mode to control each channel individually. You can control the brightness for each channel by selecting one of the menu options that includes a number with a dash and another number after it. Select a channel of 1 through 5 by clicking the Up or Down buttons. The first number is the channel and the number after the dash is the brightness level. Press the Enter button, and then press the Up or Down buttons to select a number between 00-99-FL, with "FL" indicating 100% output. Press Back once the desired brightness level has been reached.

DMX Controller Mode

Decoder Menu Options

Keep tapping on the Up button and you will find the below menu on display:

DMX signal indicator: When a DMX signal input is detected, the indicator on the display after **B** turns on red

B.XXX

B.XXX

sets the DMX address. The factory default setting is 001

00.XX

sets the quantity of DMX channels being used. The factory default setting is Ch05

00.XX

sets the PWM resolution (8bit or 16bit). The factory default setting is 16bit

00.XX

sets output PWM frequency. The factory default setting is 1K HZ

00.XX

sets output dimming curve gamma value. The factory default setting is ga 1.5

00.XX

sets Decoding mode. The factory default setting is dp1.1

Controller Functions

Basic Functions

8.XXX

DMX Address: To adjust the DMX address for the decoder, press Enter and then Up or Down to change the DMX address. Up and Down can be held down to quickly scroll through addresses. Press Back once the desired DMX address has been reached.

Advanced Functions

00.XX

DMX Channel Setting: The “Output Channels” parameter allows the utilize all five output channels using fewer DMX channels. Based on the number of independent channels needed, the outputs will be mapped as follows.

Note: This mapping is for DMX starting address 001 and default “Decoding Mode” value. Select this option clicking on ENTER, and then use the UP and DOWN buttons to set the DMX channel quantity. Click on BACK to confirm.

CH01= 1 DMX address for all the output channels all of which have 001 as the address.

CH02= 2 DMX addresses , 001 for output channels 1 and 3, and 002 for channels 2, 4, and 5.

CH03= 3 DMX addresses, 001 for output channels 1 and 2, 002 is the address for channel 003, and 003 is the address for output channels 4 and 5.

CH04= 4 DMX addresses, 001 is the address for channel output 1, 002 for output 2, 003 for output 3, and 004 for output channels 4 and 5.

CH05= 5 DMX addresses, 001 is the address for channel output 1, 002 for output 2, 003 for output 3, 004 for output 4, and 005 for output 5.

00.XX

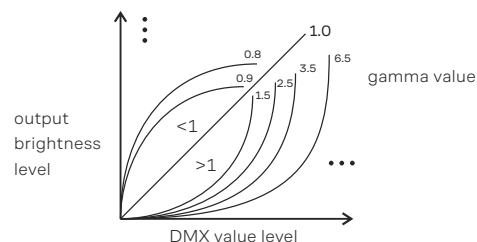
Grey Scale Setting: The Bit Depth setting controls the DMX output smoothing resolution, either 8-bit or 16-bit. The decoder provides output smoothing in 16-bit mode (default and recommended). Select this option by clicking on ENTER, and then use the UP and DOWN buttons to choose either 08-bit or 16-bit. Click on BACK to confirm.

00.XX

Setting the PWM Frequency: For this parameter, “XX” shows the frequency in kHz. The default value is “01”, corresponding to 1kHz. Options range from “00” = 500Hz to “30” = 30kHz. The output PWM frequency can be adjusted to avoid flicker in different settings. It can be left at 1kHz for most applications. For on-camera use, settings around 5kHz are typically sufficient to eliminate flicker. Select this option clicking on ENTER, and then use the UP and DOWN buttons to choose a number between 00 and 30. Click on BACK to confirm.

00.XX

Setting the Dimming Curve Gamma Value: The “gamma” value of the dimming curve is set with this parameter. This changes the rate at which the brightness changes at different DMX values. It can be used to make dimming less sensitive at the high or low end for greater precision in that brightness range. Default value is 1.5 and can be adjusted from 0.1-9.9. Values less than 1 give greater dimming precision at high brightness and values greater than 1 increase precision at low brightness. Human vision is more sensitive at low light levels, so values greater than 1 are most common. Select this option clicking on ENTER, and then use the UP and DOWN buttons to choose between 0.1 and 9.9. Click on BACK to confirm.



Setting the Decoder Mode:

Select the 

Decoding Mode tables

DMX address is 001, CH01

DMX Channel \ DMX Console Slider number	dp1.1	dp2.1
1	for all output dimming	for all output dimming
2	No use	for all output micro dimming

DMX address is 001, CH02

DMX Channel \ DMX Console Slider number	dp1.1	dp2.1	dp3.2
1	for output 1&3 dimming	for output 1&3 dimming	for output 1&3 dimming
2	for output 2,4 & 5 dimming	for output 1&3 micro dimming	for output 2,4 & 5 dimming
3		for output 2,4 & 5 dimming	for all output dimming
4		for output 2,4 & 5 micro dimming	

DMX address is 001, CH03

DMX Channel \ DMX Console Slider number	dp1.1	dp2.1	dp4.3	dp5.3
1	for output 1 dimming	for output 1 dimming	for output 1 dimming	for output 1 dimming
2	for output 2 dimming	for output 1 micro dimming	for output 2 dimming	for output 2 dimming
3	for output 3,4 & 5 dimming	for output 2 dimming	for output 3,4&5 dimming	for output 3,4&5 dimming
4		for output 2 micro dimming	for all output master dimming	for all output master dimming
5		for output 3,4 & 5 dimming		strobe effects
6		for output 3,4&5 micro dimming		

DMX address is 001, CH04

DMX Console Slider number DMX Channel	dp1.1	dp2.1	dp5.4	dp6.4
1	for output 1 dimming	for output 1 dimming	for output 1 dimming	for output 1 dimming
2	for output 2 dimming	for output 1 micro dimming	for output 2 dimming	for output 2 dimming
3	for output 3 dimming	for output 2 dimming	for output 3 dimming	for output 3 dimming
4	for output 4&5 dimming	for output 2 micro dimming	for output 4&5 dimming	for output 4&5 dimming
5		for output 3 dimming	for all output master dimming	for all output master dimming
6		for output 3 micro dimming		strobe effects
7		for output 4&5 dimming		
8		for output 4&5 micro dimming		

DMX address is 001, CH05

DMX Console Slider number DMX Channel	dp1.1	dp2.1	dp6.5	dp7.5
1	for output 1 dimming	for output 1 dimming	for output 1 dimming	for output 1 dimming
2	for output 2 dimming	for output 1 micro dimming	for output 2 dimming	for output 2 dimming
3	for output 3 dimming	for output 2 dimming	for output 3 dimming	for output 3 dimming
4	for output 4 dimming	for output 2 micro dimming	for output 4 dimming	for output 4 dimming
5	for output 5 dimming	for output 3 dimming	for all output 5 dimming	for all output 5 dimming
6		for output 3 micro dimming	for all output master dimming	for all output master dimming
7		for output 4 dimming		strobe effects
8		for output 4 micro dimming		
9		for output 5 dimming		
10		for output 5 micro dimming		

Data definitions for strobe channels

{0,7}: undefined
{8, 65}: slow-to-fast strobe
{66, 71}: undefined
{72, 127}: slow push fast close
{128, 133}: undefined
{134, 189}: slow close fast push
{190, 195}: undefined
{196, 250}: random strobing
{251, 255}: undefined

Supported RDM Parameter IDs (PIDs)

DISC_UNIQUE_BRANCH
DISC_MUTE
DISC_UN_MUTE
DEVICE_INFO
DMX_START_ADDRESS
IDENTIFY_DEVICE
SOFTWARE_VERSION_LABEL
DMX_PERSONALITY
DMX_PERSONALITY_DESCRIPTION
SLOT_INFO
SLOT_DESCRIPTION
MANUFACTURER_LABEL
SUPPORTED_PARAMETERS

Restore Factory Settings

Press and hold both BACK and ENTER keys until the digital displays turns off Then release the keys and the display will turn on again, and all settings will be rest to factory settings, which are:

DMX Address: a001
DMX Address Quantity: SW1=0: ch05, SW1=1: ch04
PWM Resolution Mode: bt16
PWM Frequency: pf01
Gamma: ga1.5
Decoding Mode: dp1.1

Warranty Information

Limited Warranty

This product has a 5 year limited warranty from the date of shipment. This warranty only includes the main product outlined in this specification sheet and does not include the additional accessories that are used as a reference.

Consumer's Acknowledgment

These products are backed by a warranty when used properly and according to the provided specifications. When you purchase these products, you agree to the terms and conditions outlined in the warranty section below. Recommendations are provided to assist with installation, but the purchaser is responsible for proper installation, design, and maintenance.

This limited warranty does not cover product failures resulting from the following causes:

Not using a voltage regulated power supply to connect the LED product or controls; Connecting LED products to the wrong output voltage; Improper connection of power supplies, LED products, or controls; Connecting LED products or controls directly to any AC power source if they are stated for DC only input; Connecting power supplies backwards to an AC power source; Products used in an inappropriate location or in environmental conditions (temperature, humidity, moisture, etc.) outside the normal specified range; Water damage to products not specifically sold as waterproof products; Electrical power surges and spikes; Damage from hail, flooding, tornado, fire, wind, earthquake, lightning, electrical storm, or any other natural disasters or "force majeure" incidences; Damage caused by a vehicle or other accident; Damage caused when transporting the item; Damage to any products that were modified by the user, used for purposes other than as intended or directed, or connected to LED systems or components not purchased from the same vendor; Products that have been subjected to misuse, mishandling, misapplication or accident; Products used in connection with any components, devices, or systems other than those explicitly approved as compatible within this resource and associated documentation; Excessive wear and tear and/or physical or accidental abuse, loss, or theft. Improper repairs or warranty services performed by unauthorized parties will void this warranty.



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