



**LIGHTING**  
SINCE 1986

# BL Controls Decoder RDM16 Manual



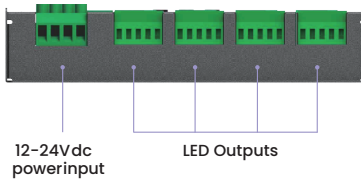
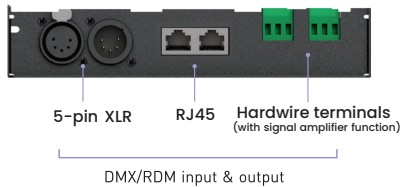
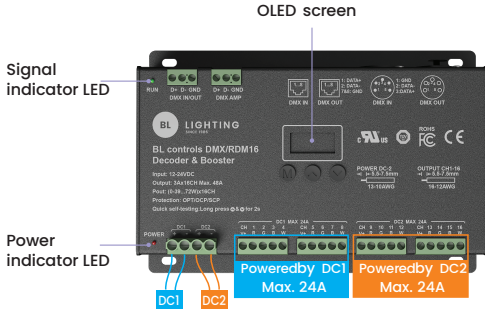
**BL LIGHTING. ILLUMINATE EVERYTHING**

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## Main Component Description



## OLED screen interface



Short press "M" key - switch entries.  
 Long press "M" key - Back to main page.  
 Press "^" or "v" key - Parameter adjustment.

### 1. DMX address settings

DMX: 001 Hz: High  
 Mode: RGBW 8bit  
 Curve: Standard  
 Dim: Smo TOOL

Press "^" or "v" key to set DMX address.  
 Range: 001-512

Main page

### 2. PWM frequency

DMX: 001 Hz: High  
 Mode: RGBW 8bit  
 Curve: Standard  
 Dim: Smo TOOL

Press "^" or "v" key to choose. Use Std for no flicker

Available :  
 Std (standard)  
 High  
 Mid (middle)  
 Low

\*It is recommended to use standard.

### 3. Modes

DMX: 001 Hz: High  
 Mode: RGBW 8bit  
 Curve: Standard  
 Dim: Smo TOOL

Press "^" or "v" key to choose mode.  
 Available Modes: DIM/CT/CT2/RGB/RGBW

### 4. Grey scale

DMX: 001 Hz: High  
 Mode: RGBW 8bit  
 Curve: Standard  
 Dim: Smo TOOL

Press "^" or "v" key to choose.  
 Available :  
 8bit  
 16bit (choose only if the master controller supports this function)

### 5. Dimming curves

DMX: 001 Hz: High  
 Mode: RGBW 8bit  
 Curve: Standard  
 Dim: Smo TOOL

Press "^" or "v" key to choose.  
 Available :  
 Standard  
 Linear LOG 0.1-9.9

\*It is recommended to use standard dimming for most applications

## 6. Enhance dimming

```
DMX: 001 Hz: High
Mode: RGBW 8bit
Curve: Standard
Dim: Smo TOOL
```

Press “^” or “v” key to choose.  
Available :  
Std (standard)  
Smo (smooth)

\*It is recommended to use standard.

Smo: flicker-free dimming and smooth dynamic effects,  
higher processing time.

## 7. Tool

```
DMX: 001 Hz: High
Mode: RGBW 8bit
Curve: Standard
Dim: Smo TOOL
```

Press “^” or “v”  
key to enter sub-menu

```
Screen: ON+Addr
Contrast: 40%
Beep: ON TEST
EXIT
```

Press “^” or “v”  
key to enter submenu of test.

```
001
```

**Screen: ON+Addr**

Screensaver + display address  
without operating in two minutes.



**Screen: ON+black**

Screensaver - black without  
operating in two minutes.

```
CH01: 255
CH02: 255
CH03: 255 [^&V]
CH04: 255 EXIT &V
```

Brightness setting  
(range: 0-255)  
Press “^” or “v”  
to next page  
Press “v” to exit

```
ALL: 255
[^&V]
EXIT &V
```

Change all value  
simultaneously  
(on the last page)

```
DMX: 001 Hz: High
Mode: RGB 8bit
Curve: Standard
Dim: Smo TOOL&v
```

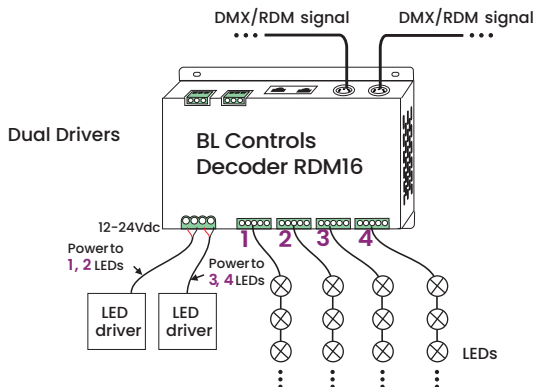
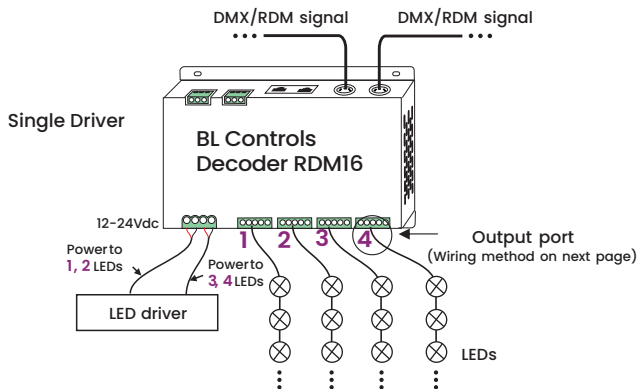
**Screen: OFF**

Screensaver not enabled.

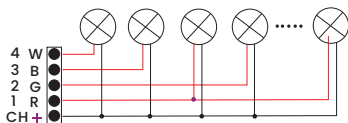
\* Fast self-testing function: press “ ” or “ ” keys  
simultaneously for 2-3 seconds under any page,  
decoder will enter self-testing function.

## Wiring diagram

### Connecting Drivers:

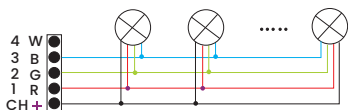


### Dimming LEDs



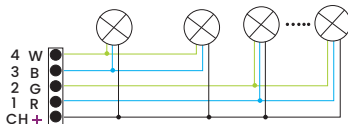
Dimming mode

### RGB LEDs



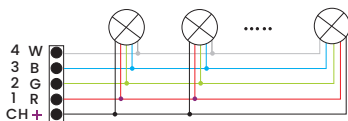
RGB mode

### CT/CT2 LEDs



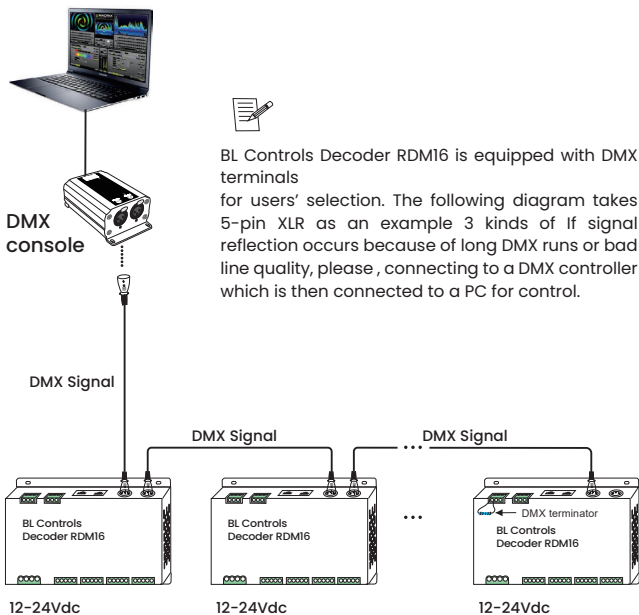
Color temperature mode

### RGBW LEDs



RGBW mode

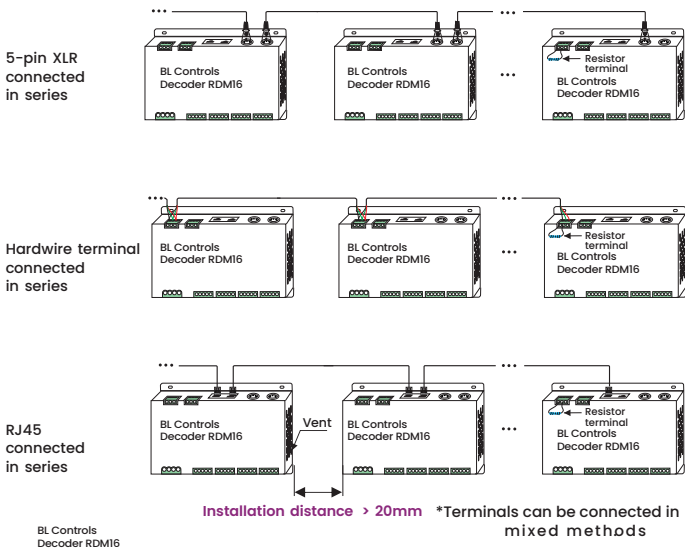
## DMX controller connection:



BL Controls Decoder RDM16 is equipped with DMX terminals for users' selection. The following diagram takes 5-pin XLR as an example 3 kinds of If signal reflection occurs because of long DMX runs or bad line quality, please , connecting to a DMX controller which is then connected to a PC for control.

\* If signal reflection occurs because of long DMX runs or bad line quality, please make sure a DMX terminator is being used.

## Different DMX connection methods:



\* IMPORTANT: Please reserve enough ventilation distance between decoders

## Amplifier connection:

\* Amplifier will be needed when more than 32 decoders are connected or use of long signal wire (as shown below). The signal amplifier should not be used more than 5 times continuously.

