



## PX-RGB-DMX

### Wireless DMX Dongle for LED Lighting Fixture

Compatible with ColorCue, CM-T10PROE, DMX-Link, PX-T10 and ColorFx

#### Introduction

PX-RGB-DMX is a wireless receiver that will communicate with all ColorMaker RF transmitters. The radio signal from the remote is converted to a DMX signal and can be used to control any RGB LED fixture with a DMX input. All Colormaker technology including ColorRoll, Color Effects and Auto Programming are coded into the PX-RGB-DMX dongle. The DMX output is through a 3 pin XLR connector. The design is small and compact and in most cases the PX-RGB-DMX dongle can connect directly to the DMX jack on the LED fixture with a short barrel connector. The swivel mount antenna can be adjusted to a position the antenna for best performance.

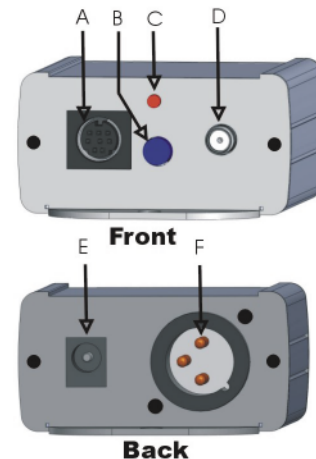
The PX-RGB-DMX dongle is powered by 9-12 volt AC adapter or can be powered with 9 volt battery for 100% wireless operation. (9 volt battery adapter required)

The PX-RGB-DMX dongle can be auto programmed to receive one RGB channel from the remote. e. The output DMX uses the DMX address 1 for Red, 2 for Green and 3 for Blue. This setup is factory default and is user programmable if the connected fixtures requires a different patch setup.



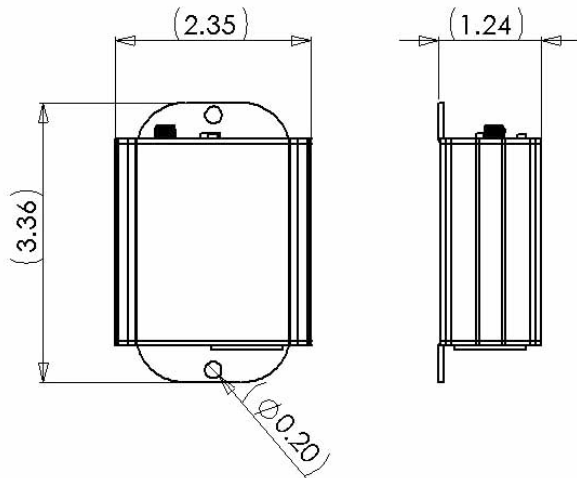
#### PX-RGB-DMX Details

- A** - Programming jack use to update the PX-RGB-DMX software.
- B** - Auto Program switch used to set the PX-RGB-DMX receive address. This will also be used if a new DMX patch is needed.
- C** - Color Simulator indicator. This will simulate the color mix of the red, green and blue values the dongle receives from the remote. This will also be used to indicate auto address and DMX patch setup.
- D** - Connector for the antenna (included)
- E** - 2.5mm power jack for 9-12 volt input.
- F** - 3 pin XLR DMX output



The PX-RGB dongle operates on 916 MHz and has a communication range of +400 feet line of sight is not required. 916 MHz a frequency not commonly used so wireless devices such as microphones and speakers will not interfere with the operation. The 916 MHz frequency is well below the 2.4GHz widely used by other wireless LED manufacturers.

## Dimensions



Frequency: 916 MHz  
Power supply: 9-12 volts 2.5mm power jack  
Max current: 150ma

### Dimensions:

Width: 2.35  
Height: 1.24  
Length: 3.36 (including mounting ears)  
Weight: .2 lbs

DMX packet length: 50 channels  
DMX refresh rate: 24 us

## Operation

The PX-RGB-DMX can be controlled with all ColorMaker remote controls. Some of the features require our most advanced models such as the PX-T10 and ColorFx. The dongle address is factory set to receive data on channel Q1 from the PX series and is ready to go out of the box. Most of the features for the PX-RGB-DMX dongle and how to use them can be found in the manual for the transmitter. The dongle will send the red, green and blue color values on DMX channels 1,2 and 3 so all LED fixtures connected to the dongle will require them to be set to start channel of 1. So for example if you set the dongle to receive data from Q2 on the remote the DMX will still output on DMX channels 1,2 and 3. The LED indicator on the dongle will also simulate the colors the dongle will send on the DMX and can be used as a reference.

### Connecting the PX-RGB-DMX dongle to the LED fixture

The PX-RGB-DMX dongle has a 3 pin XLR connector. This is the conductor that will send the DMX signal to the LED fixture to control the colors. Connection can be made using a 3 pin XLR data cable or using a XLR male to female barrel connector. ColorMaker offers this connector as an accessory item and can be purchased separately. The power supply will be connected using a 12 volt AC adapter with a 2.5mm jack supplied with PX-RGB-DMX dongle. Once the connections have been made orient the antenna to the most horizontal position for the best performance.

### Auto Addressing

To auto address the dongle follow these few steps.

- 1) Power up the PX-RGB-DMX dongle
- 2) Press and hold the program button until the indicator light turns yellow.
- 3) Select the Q you want to use on the remote then press the Red UP button. The PX-RGB-DMX dongle should then respond. The indicator LED on the dongle will turn red. This completes the addressing. The address is stored in memory and will not be lost when power is turned off. The address can be set as many times as needed.

## **DMX Output**

The PX-RGB is factory set to send Red value on DMX channel 1, Green on DMX channel 2 and Blue on channel 3. We have found most LED fixtures on the market follow this format. If you find the colors channels do not control the LED colors you may have to set the patch to change the DMX data format.

## **DMX Patching**

Setting the RGB channels to match the DMX LED fixture requires a few simple steps. This procedure you will assign a color to each of the DMX channels. This procedure you will use the Program switch and the LED indicator. This procedure will require you to press and release the program switch quickly 2 seconds or less and also require to hold the program switch for more than 2 seconds. Follow these steps below.

**Step 1:** Press and Hold the program switch while plugging in the 12 volts. Hold the program button until the indicator turns on. Then release. The color that the indicator displays represents DMX channel color 1.

**Step 2:** To change channel 1 color setting press and release the program button in less that 2 second. Each press and release will advance the color. You can scan through the red, green and blue and then repeats.

**Step 3:** Once you have the selected color Press and Hold the program button until the indicator goes OFF and then ON. The color that the indicator displays represents DMX channel color 2. Repeat step 2 to make changes or Step 3 to save and advance to DMX channel color 3.

**Step 4:** Once you have completed DMX channel color 3 the PX-RGB-DMX dongle will save the DMX patch setup. You can change the setup as many times as needed. The setup changes are saved to memory and turning the power off will not affect the changes.

## **Software upgrade**

Colormaker has designed the PX-RGB-DMX dongle with more memory and features than we will ever use. We are always thinking of how to improve our products with more controls and features so we designed the PX-RGB-DMX dongle with load of extra memory space and used a micro processor with extra timers, registers, converters and clocks so we are only limited by our imagination. We also included connector for users to load our new ideas.

## **Warranty**

ColorMaker hereby warrants, to the original purchaser, ColorMaker products to be free of manufacturing defects in materials and workmanship for a period of 1 year from the date of purchase. This warranty shall be valid only if product is purchased within the United States of America. It is the owners responsibility to establish the date and place of purchase by accepting evidence, at the time service is sought.

For warranty service, send the product to the ColorMaker factory. All shipping charges must be prepaid. Equipment must be sent in its original package and to include all control devices.

Warrant is void if serial number has been altered or removed, seals have been voided, if the product is modified in any manner which ColorMaker concludes, after inspection, affects the reliability of the product; if the product has been repaired or services by anyone other than ColorMaker unless prior written authorization was issued to purchaser.

ColorMaker reserves the right to make any changes in the designs and/or improvements upon its products without any obligation to include these changes in any products theretofore manufacture.

Factory location:  
ColorMaker  
980 Sunshine Lane Suite T  
Altamonte Springs Florida 32714  
(407) 862-3363



This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- \* Reorient or relocate the receiving antenna.
- \* Increase the separation between the equipment and receiver.
- \* Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- \* Consult the dealer or an experienced radio/TV technician for help.

The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.