

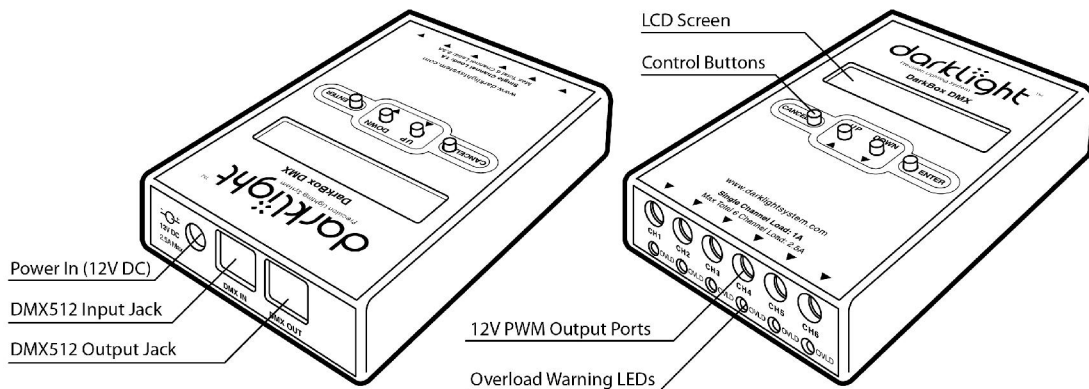
darklight

DarkBox DMX Manual

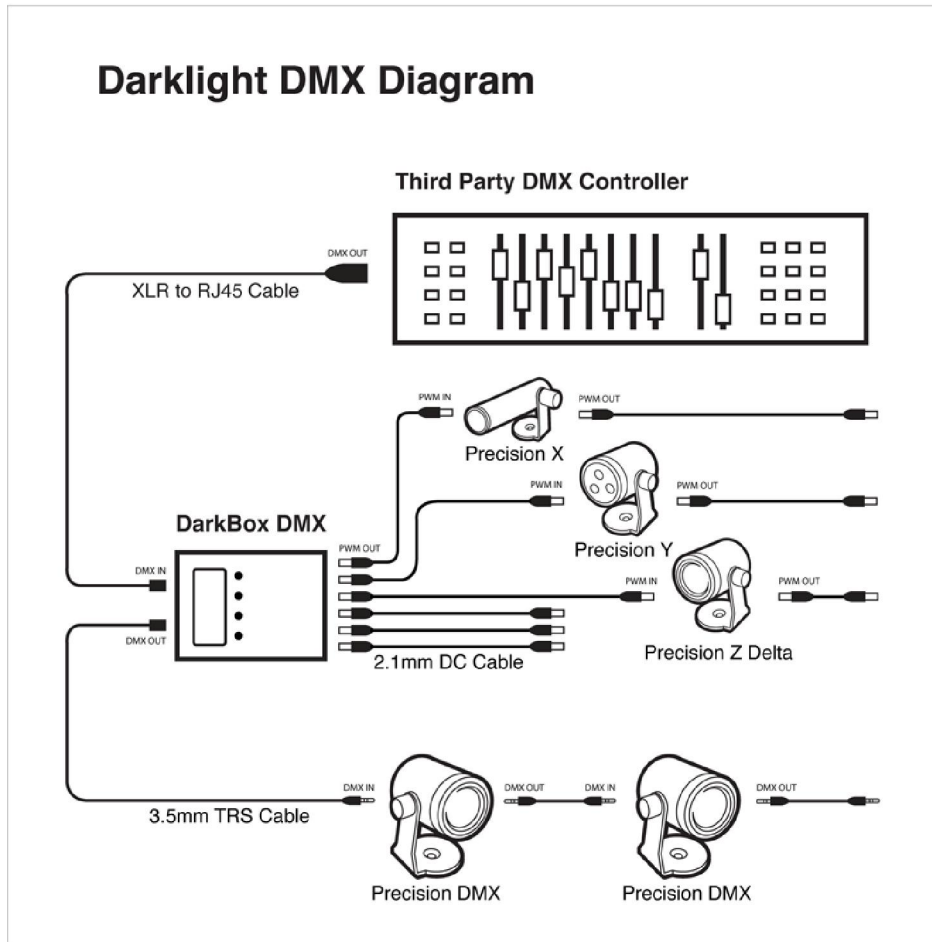
Revised March 5, 2011

DarkBox DMX is a dynamic 6 channel LED driver capable of DMX512 input. Under DMX mode, the brightness of each channel is controlled via a DMX controller. The DarkBox DMX can also drive lights without a DMX controller in a variety of patterns such as blink, strobe, glow, flicker, sweep, and chase. The overall brightness of all 6 channels can also be controlled. The DarkBox DMX features built-in memory that saves the last stored settings of the device and restores these settings when powered on.

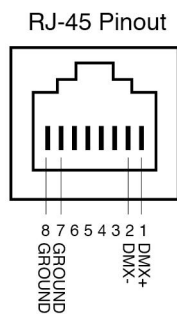
DarkBox DMX is compatible with Darklight **Precision X**, **Precision Y**, and **Precision Z Delta** models. 3rd party 12V PWM dimmable LEDs may also be used.



1. **Connecting the DarkBox DMX:** Below is a system diagram of how the DarkBox DMX is connected to your other lighting products.



2. **DMX Mode:** In DMX mode, the brightness of the 6 output channels can be individually controlled with a 3rd party DMX controller.
 - a. The output of any 3rd party DMX controller should connect to the "DMX In" RJ-45 port on the DarkBox DMX. The pinout is as follows: 1. DMX+ 2. DMX- 7. GROUND 8. GROUND



- b. If other DMX devices are to be connected after the DarkBox DMX, they may connect via the "DMX Out" RJ-45 port.
 - c. To enter DMX Mode, press the (+) or (-) keys in the Main Menu until the display shows "DMX Control Mode", then press (ENTER) to select DMX Mode.
 - d. Once in DMX Mode, press the (+) or (-) keys to select the desired DMX address for the DarkBox DMX, pushing (ENTER) will store the address into memory. Selecting a DMX address of 0 will turn all outputs off.
3. **Blink, Strobe, Glow, Flicker, Sweep and Chase Modes:** These are built-in light patterns that can drive 6 channels of LEDs without the need for a DMX controller.
 - a. Pressing (+) and (-) in the Main Menu and pushing (ENTER) will select the desired mode of operation.
 - b. Once in the desired mode, pressing the (+) and (-) will adjust the speed of the pattern. Pushing (ENTER) will save the current setting to memory.
4. **Brightness:** The overall output brightness of all 6 output channels can be dimmed in the Brightness Menu regardless of mode.
5. **Over-Current Warning:** A small red LED is located under the output port of each channel. When the load exceeds the recommended capacity (either too many LEDs on a single channel or a short circuit), the red LED corresponding to the overloaded channel will turn on.
6. **Resetting to Defaults:** Holding down both (+) and (-) buttons when plugging in power will reset the system memory.
7. **Tips & Tricks:** Below are some application suggestions for the DarkBox DMX.
 - a. Since multiple lights can be driven on each channel, one can mix colors by group the same colored LEDs onto a single channel. For example, Channel 1 = Red, Channel 2 = Green, and 3 = Blue. If all 3 channels of lights are pointed at the same object, one can easily control the resulting color pointed at the object.
 - b. In Flicker Mode, each channel outputs an independent flicker pattern. One can create a more realistic flicker effect by staggering the placement of different channel lights together in one scene instead of grouping all lights of a single channel together.

Specifications	
Input voltage	12V DC
Input signal	DMX512 (D+,D-,GND)
Output signal	12V PWM
Max current per channel	1000mA*
Max total current	2500mA**
Dimensions	4.3" x 2.9" x 1.0"
DMX512 jack sizes	2 x RJ45
RJ45 Pinout	1. D+ 2. D- 7. GND 8. GND
DC jack size	Standard 2.1/5.5mm

* Although each channel is capable of 1000mA of current, the total current between all channels should be under 2500mA. It is also recommended to spread the load evenly across all 6 channels. For full load current of 2500mA, each channel should only have 420mA maximum load current.

** Recommended power source: PowerPak 2500 (sold separately)