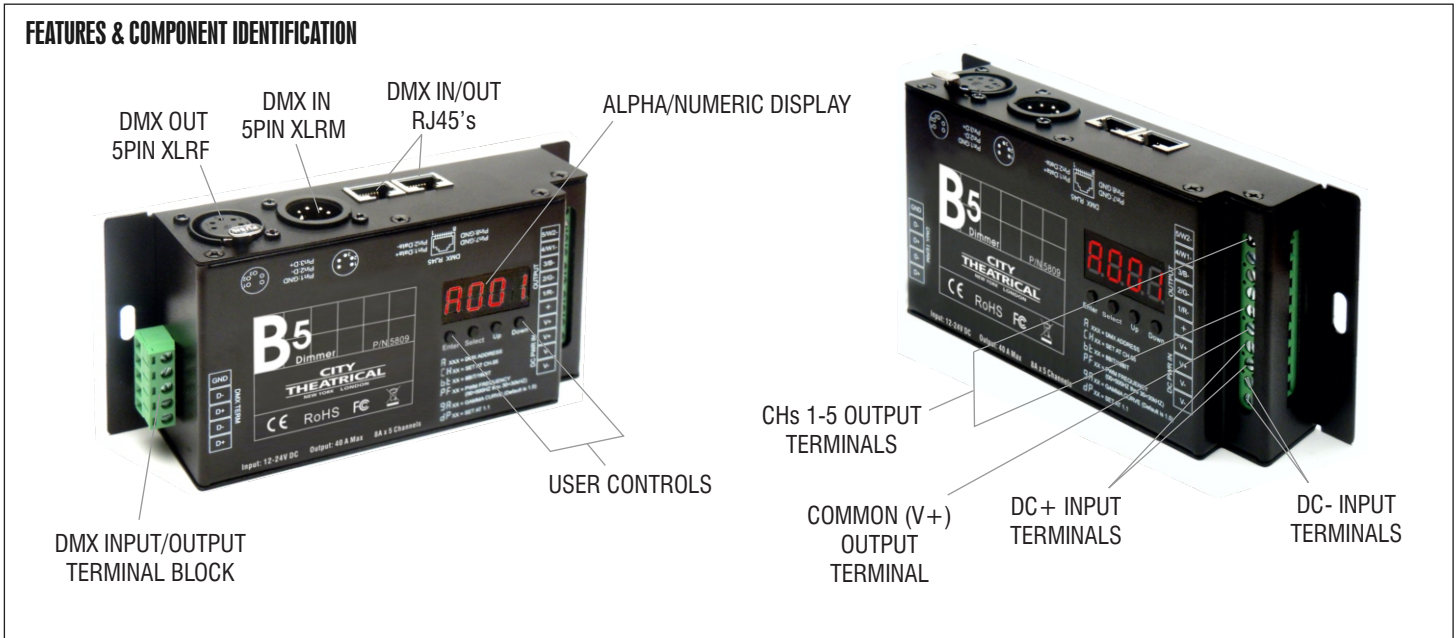


# B5 Dimmer P/N 5809

## Quick Start Guide



The B5 Dimmer can control a full 40A of LED tape spread over five channels of 8A each. This allows the control of unique combinations such as RGB tape (three channels) and bi-color tape (two channels), or RGBX tape (four channels) and a single color tape (one channel) together in one unit. The B5 uses constant voltage technology which ensures consistent full range dimming that is especially important at low end light levels.

An easy to read onboard display and four button user interface allows selection and control of six functions: setting DMX addresses, setting quantity of DMX channels, selecting 8 or 16 bit output resolution, setting PWM frequency (500Hz to 30KHz), setting output

dimming curve values for matching the dimming curves of other dimmers in use, and setting the device's operating profile. The B5 Dimmer is also RDM capable.

The unit requires a separate power supply providing input voltage of 12-24VDC. The maximum current load per channel is 8A with a maximum device output of 40A.

The B5 Dimmer is designed to operate perfectly with City Theatrical's QolorFLEX LED tape, the LED tape of professionals on Broadway, network television, and architectural lighting installations.

### Quick Start Instructions:

1. Connect the B5 Dimmer to your DMX controller by using either the DMX five pin XLRM input, an RJ-45 DMX input/output, or the DMX input/output terminal block. DMX out can be either the five pin XLRF output, the RJ-45 input/output or the DMX input/output terminal block.
2. Connect your load to the output channels using the screw terminals. For single color LED tape with two connection wires, connect the V- (black) wire to any one of the four output channel terminals and the V+ (red) wire to its corresponding terminal. When using multi-color LED Tape, connect as follows: CH1-red, CH2 green, CH3 blue, CH4 fourth color, CH5 fifth color. *Note\*- The V+ (common) circuit for multicolor tape will be connected to either a black or white wire. To determine which is correct, look at one of the sets of contacts on the tape itself and note which color wire is connected to the one labeled (+).* Do not exceed the maximum load capacity of 8A per channel.
3. Connect the appropriate power supply providing 12-24VDC to the power input screw terminals. Be sure not to exceed the 20A maximum rating on any one screw terminal. *Note\*-The size of the power supply must match the tape being used in both voltage and watts.* B5's maximum output power rating is: 480W (12V), and 960W (24V).

**Control Interface**



**Operation:**

1. Press "Up" to scroll thru menu choices
2. Press "Select" to enable programming- (display flashes)
3. Use "Up" or "Down" buttons to set values
4. Press "Enter" to save value.

**The six function menus are:**



DMX Address



DMX Channel Qty



Output Resolution



PWM Frequency



Dimming Curve Value



Operating Profile

Note\*- To restore factory defaults, press and hold both "Enter" and "Select" for 5 seconds until display goes out.

**DMX Start Address-** (Factory default is 001)  
Sets the DMX address for the dimmer.

**DMX Channel Qty-** (Factory default is 05)

**SETTINGS:**

- CH01: DMX addresses 1,2,3,4,5 = 001
- CH02: DMX addresses, 1,3 =001, 2,4,5 =002
- CH03: DMX addresses, 1 =001, 2 =002, 3,4,5 =003
- CH04: DMX addresses, 1 =001, 2 =002, 3 =003, 4,5 =004
- CH05: DMX addresses, 1 =001, 2 =002, 3 =003, 4 =004, 5 =005

**Output Resolution-** (Factory default is 16)

Resolution determines the smoothness of the dimming. 8 bit uses 1 DMX channel, while 16 bit uses 2.

AVAILABLE SETTINGS: 08 or 16

**PWM Frequency** (Factory default is 01)

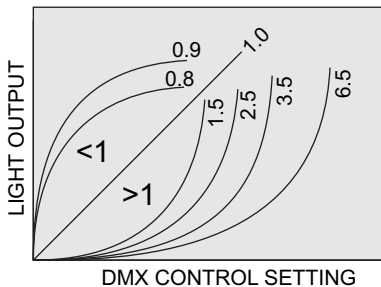
PWM frequency is used to tune the dimmer for flicker free operation when used with high speed cameras. A high PWM value produces the least amount of flicker. A low PWM value produces better dimming quality. Always perform a camera test to confirm optimal results.

AVAILABLE SETTINGS: 00 thru 30

Values: 00 = 500Hz  
01 to 30 = 1kHz to 30kHz

**Dimming Curve** (Factory default is 1.5)

The Dimming Curve may be adjusted to affect the rate of rise and fall of the dimmer. Values less than 1.0 increase the rate, while values greater than 1.0 decrease the rate. (1.0 is linear)



AVAILABLE SETTINGS: 0.1 thru 9.9

**Device DMX Profiles** (Factory default is 1.1)

DMX Address is 001,CH01		
	dp1.1	dp2.1
Channel 1	For all output dimming	For all output dimming
Channel 2	—	For all output Fine dimming

DMX Address is 001,CH02			
	dp1.1	dp2.1	dp3.2
Channel 1	For output 1&3 dimming	For output 1&3 dimming	For output 1&3 dimming
Channel 2	For output 2,4&5 dimming	For output 1&3 Fine dimming	For output 2,4&5 dimming
Channel 3	—	For output 2,4&5 dimming	For all output dimming
Channel 4	—	For output 2,4&5 Fine dimming	—

DMX Address is 001,CH03				
	dp1.1	dp2.1	dp4.3	dp5.3
Channel 1	For output 1 dimming	For output 1 dimming	For output 1 dimming	For output 1 dimming
Channel 2	For output 2 dimming	For output 1 Fine dimming	For output 2 dimming	For output 2 dimming
Channel 3	For output 3,4&5 dimming	For output 2 dimming	For output 3,4&5 dimming	For output 3,4&5 dimming
Channel 4	—	For output 2 Fine dimming	For all output dimming	For all output dimming
Channel 5	—	For output 3,4&5 dimming	For all output dimming	Strobe Effects
Channel 6	—	For output 3,4&5 Fine dimming	—	—

DMX Address is 001,CH04				
	dp1.1	dp2.1	dp5.4	dp6.4
Channel 1	For output 1 dimming	For output 1 dimming	For output 1 dimming	For output 1 dimming
Channel 2	For output 2 dimming	For output 1 Fine dimming	For output 2 dimming	For output 2 dimming
Channel 3	For output 3 dimming	For output 2 dimming	For output 3 dimming	For output 3 dimming
Channel 4	For output 4&5 dimming	For output 2 Fine dimming	For output 4&5 dimming	For output 4&5 dimming
Channel 5	—	For output 3 dimming	For all output dimming	For all output dimming
Channel 6	—	For output 3 Fine dimming	—	Strobe Effects
Channel 7	—	For output 4&5 dimming	—	—
Channel 8	—	For output 4&5 Fine dimming	—	—

DMX Address is 001,CH05				
	dp1.1	dp2.1	dp6.5	dp7.5
Channel 1	For output 1 dimming	For output 1 dimming	For output 1 dimming	For output 1 dimming
Channel 2	For output 2 dimming	For output 1 Fine dimming	For output 2 dimming	For output 2 dimming
Channel 3	For output 3 dimming	For output 2 dimming	For output 3 dimming	For output 3 dimming
Channel 4	For output 4 dimming	For output 2 Fine dimming	For output 4 dimming	For output 4 dimming
Channel 5	For output 5 dimming	For output 3 dimming	For output 5 dimming	For output 5 dimming
Channel 6	—	For output 3 Fine dimming	For all output dimming	For all output dimming
Channel 7	—	For output 4 dimming	—	Strobe Effects
Channel 8	—	For output 4 Fine dimming	—	—
Channel 9	—	For output 5 dimming	—	—
Channel 10	—	For output 5 Fine dimming	—	—