

W-DMX Operation Guide

Overview

Luxapel lights can be operated with DMX512 using a wired or wireless W-DMX system. For lights equipped with a Bluetooth module the lights can also be set up and/or controlled using a mobile device and the LuxiumApp. For DMX operation the system will generally include a DMX console with either a wired system for directly wired control or a wireless W-DMX transmitter hub (TRW1) that is connected to the DMX controller and paired to W-DMX configured lights.

To set the DMX address and operation mode of the lights a mechanical DIP switch is used or a Bluetooth module and mobile app.

NOTE: If a DIP switch is present on a light fixture then it will not have a Bluetooth radio and vice versa.

TRW1 Transmitter Hub Operation



Lights configured with wireless W-DMX control capability can be set up to operate in a DMX512 universe with a DMX console by using a W-DMX (Wireless Solutions) transmitter (such as the LUXAPEL **TRW1**) which will broadcast signals from the DMX control console.

From a DMX control console, a DMX cable is connected to the TRW1 via the 5-pin XLR jack on the back of the transmitter. The TRW1 radio can then send commands to all Luxium wireless W-DMX lamps that have been paired with the transmitter. The TRW1 user interface consists of a menu screen and control knob for choosing settings. The user is able to choose settings from the menu and configure groups of compatible lighting devices. A W-DMX system sends signals over the air using 2.4GHz band to all lights that have been paired with a transmitter. Once the transmitter is linked with a lamp a relationship is established, until a lamp is unlinked.

PAIRING THE LIGHTS TO A TRANSMITTER

1. Link the lights with the transmitter.
 - Rotate knob to LINK. Push the knob to start the linking operation
 - Click the button again, and all the lights will flash green indicating they are linked.
2. Run a simple Light Show directly from the TRW1 transmitter.
 - Rotate to find LightShow and click and then rotate again to find the type of show.
 - Try “MultiFade” – to show off the saturated colors.
 - Under Options you can change the fade/cycle speed and other parameters.
3. Connect with a DMX controller.
 - At this point you can plug a DMX signal into the TRW1 and control the lights with a DMX console.
4. If needed, UnLink the lights with the transmitter.
 - With all lights energized, rotate dial to UNLINK and confirm the selection.
 - Lights will no longer respond to DMX commands and will fade to black.

NOTE: A light must be un-linked before using it in wired mode. This is necessary if using Wireless W-DMX, since a wireless receiver in the light acts as a local DMX master and will interfere with an externally-input wired DMX signal.

For wireless DMX lights that are equipped with DIP switch this is a way to (UNPAIR).

1. Begin with the light powered off
2. Set DIP switch to 1011 1100
3. Turn power on to the light
 - a. Light should flash lime-green-lime-green repeatedly
4. Change the DIP switch to 1011 1101 (flip right most switch up)
 - a. The light will rapidly flash red color, 5 seconds later the red flashing will stop
 - b. use the DIP to set the desired DMX address value

NOTE – If a light is configured with Bluetooth module then Unlink (Unpair) the light using INFO page on the app.

Mobile Device Operation

Bluetooth controllable lights it will be equipped with a Bluetooth module and you should follow the instructions below to set up and/or operate the lights.

BLUETOOTH SETUP and CONTROL



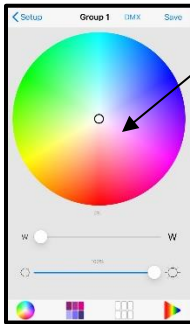
1. From the APP STORE Download and run the LuxiumApp - Luxium (iOS) or Luxium2 (Android).



2. At the startup screen (GROUPS), touch the SCAN and SETUP button.



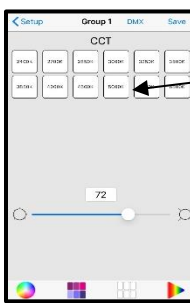
3. On the (SETUP) page you should see an available unit in the Ungrouped Lamps section. Touch the unit name (ZBxxxx) and ADD to a Group. Now your phone or tablet is 'connected' to the light – and will show in the Groups section.



4. To change the color of the light, touch the small color wheel icon in the Groups section to go to the Color Wheel page.

5. Set a color with the color wheel. Set brightness level and hue with the sliders.

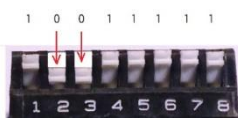
On lights that include DMX512 control - Touch 'DMX' in the app to place the unit in DMX mode. NOTE: the light will stay in DMX mode until a color choice is made in the app by touching again on the color wheel or preset buttons. (Bluetooth overrides the DMX control.)



6. For calibrated white color temperatures choose a CCT from the table of white settings.

Touch 'SAVE' in the app to store the current setting in memory. The light will automatically return to this setting on startup. WARNING- DO NOT SAVE, if the light should continue to respond to DMX signals, as this SAVE action will override the DMX control!

DIP SWITCH SETUP



On lights configured with a mechanical DIP switch use a pattern of 0/1 positions of the switch to set the DMX address. Other special functions are possible, such as setting a fixed color. Try setting the switches for Full Light Output, to get familiar with the orientation of the switch: The shorthand for this setting is 1001 1111. All switches are in the up (on) position except switches 2&3.



When needing to configure lights for DMX512 operation the LuxiumApp can be used to set the address. Connect each unit and choose INFO from the SETUP page to change the DMX address setting for each lighting unit. Lights must have a Bluetooth module for the App to work to set the address.

Use the virtual DIP switch or Enter the DMX address desired for the chosen light. The light will use this address when under DMX control.

Wired DMX Codes

SWITCHES	FUNCTION
0uuu uuuu	4-channel DMX Mode. uuu uuuu = zero-based unit number (0..127).
1000 cccc	Std. White Static Color Mode. cccc = Color selector (0..15) from table.
1001 cccc	RGBW Static Color Mode. cccc = Color selector (0..15) from table.
1010 uuuu	DMX Color Mixer Mode. uuuu = zero-based unit number (0..15).
1011 0bbb	Ballyhoo Mode. bbb = Ballyhoo pattern selector (0..7).
1011 1mmm	Factory Modes. mmm = Factory mode selector (0..7).
1100 0000	DMX Emitter Test Mode. First 6 DMX channels activate PWM outputs.
11XL WBGR	Emitter Test Mode. 1 bit (on/off) for each output PWM.

NOTE: Addresses are set using position 8 as the least significant bit. DMX addresses 1,2,3,4 used when switch is set to 0000 0000 (all down). With 8-position DIP the addresses index by 4, so for example addresses 5,6,7,8 are used with setting 0000 0001. (See **DMX User Guide** for more details and a full table of addresses for DIP switch settings).

Below is a summary table to better understand the possible System Configurations.

Possible Configurations of Luxium Lights			
System Configuration	Controlling the Light	Setting the DMX address	Note
Wired DMX512 with DIP Switch	DMX512	DIP switch	Set DMX control with DIP switch
Wireless DMX512 with DIP Switch	DMX512	DIP switch	Light will receive <u>wireless</u> DMX and output <u>wired</u> DMX
DIP Switch	DMX512	DIP Switch	Standard 'Wired' DMX operation. Set Static mode or DMX address with DIP.
Wired DMX512 with BLE Module	DMX512 or LuxiumApp	BLE app	Other lighting options available using the LuxiumApp
Wireless DMX512 with BLE Module	DMX512 or LuxiumApp	BLE app	DMX configuration options using the LuxiumApp. App can set DMX address
BLE Module Only	LuxiumApp	N/A	Short range operation of a few lights with phone or tablet using LuxiumApp

NOTE: If a light is equipped with a DIP Switch, it is usually NOT equipped with a Bluetooth Module.

NOTE: One way to determine if a light has a W-DMX receiver module is to observe that the light has an antenna.