



BL LIGHTING
SINCE 1986

BL fiberSOURCE Pavo RGBW Installation & Operation Manual



BL LIGHTING

ILLUMINATE EVERYTHING

111 - 8838 Heather St. Vancouver, BC, Canada. V6P 3S8
P: 1-604-874-4405 E: info@bllighting.com
Copyright © BL INNOVATIVE LIGHTING. All Rights Reserved.

bllighting.com



INTRODUCTION

Thank you for purchasing this BL fiberSOURCE Pavo RGBW Illuminator.

Please read this Installation & Operation Manual completely prior to installation and operation of the BL fiberSOURCE illuminator.

Please note that these instructions are guidelines only and in no way supersede any construction or installation standards. Local building and electrical codes should be consulted prior to installation.

Warning:

There is potential danger of electrical shock when operating electrical equipment, ensuring the unit is turned off and disconnected from power prior to installation.

Solid State Lighting is sensitive to power fluctuations. Surge Protection is highly recommended for all LED lighting products and should be on a designated circuit to ensure optimal service life.

- Do not attempt to open non-serviceable parts inside the illuminator
- Installation must be performed by a qualified professional in accordance with local codes.
- The illuminator should be installed in an accessible, dry, and well ventilated environment. A minimum clearance of 8" (0.2M) is required from surrounding surfaces.
- BL fiberSOURCE illuminators are equipped with a mounting plate or feet, for securing to a vertical or horizontal surface.
- Do not modify or alter the illuminator, there are no user-serviceable parts inside.

Never look directly into BL fiberSOURCE through the port aperture, and always position carefully to avoid unexpectedly staring into the BL fiberSOURCE at a distance closer than 10ft (3M).

BL fiberSOURCE Pavo is a high performance, DMX enabled, RGBW LED illuminator, designed to integrate with BL fiberOPTIC, to create vibrant, rich, color changing effects.

The light source is fitted with a 93W RGBW LED with 6500K white (4000K/3000K optional) and 50,000 hour lamp life. Multiple units may be set to a Master/Slave configuration, and may be ordered with optional Twinkle Wheel and / or RF Remote.

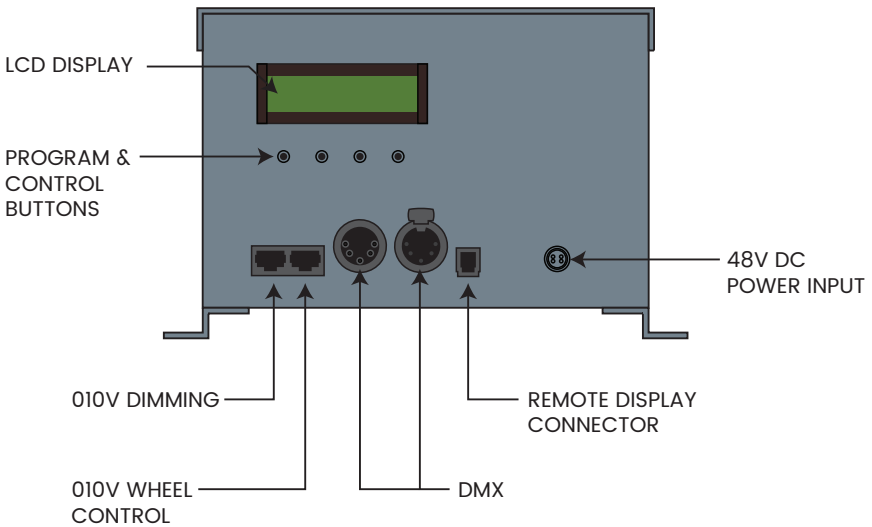
With preset programs, manual operation is easy using the on board push button controls with rear LCD display, or take charge of your color changing, dimming or twinkling effects with 010V or DMX control systems.

INSTALLATION

The LED illuminator is powered from a multifunction, multi-voltage, 48V desk-top Power Supply Unit. The PSU is an IEC 100-24VAC power input device.

BL fiberSOURCE Pavo RGBW is equipped with control functionality and is configurable via rear panel connections, push buttons and LCD display.

Rear Panel View





CONNECTIONS FOR MANUAL OPERATION

There are two connections required – the fiber port aperture and the main power supply. The fiber port aperture should be connected prior to connection to the main power supply.

Connect and secure the fiber optic connector into the collar in the front of the unit, and secure using the M5 locking screw, ensuring the connector is fully inserted before tightening the screw.

Never run BL fiberSOURCE with the fiber optic connector out of the collar.

Connect the IEC power cord into the 48VDC input connector on the back of BL fiberSOURCE, and plug the unit into the surge protected main power electrical socket. Switch on power, the PSU indicator will illuminate, and BL fiberSOURCE is ready for use. If no light is produced consult the troubleshooting section.

CONNECTIONS FOR DMX REMOTE CONTROL & DMX MASTER/SLAVE OPERATION

There are 3 connections required; the fiber port aperture, the main power supply cable, and the DMX control cable. The fiber port aperture should be connected prior to connection with the main power supply.

Connect and secure the fiber optic connector into the collar in the front of the unit, and secure using the M5 locking screw, ensuring the connector is fully inserted before tightening the screw.

Never run BL fiberSOURCE with the fiber optic connector out of the collar.

For DMX control connect up the DMX control cables to the 5-pin XLR sockets on the rear of the illuminator. The pin out details for the plugs are shown below

Female



Male



Pin	Description
1	Ground/Shield
2	Data - (cold)
3	Data + (hot)
4	Not used
5	Not used

Connect the IEC power cord into the 48VDC input connector on the back of BL fiberSOURCE, and plug the unit into the surge protected main power electrical socket. Switch on power, the PSU indicator will illuminate, and BL fiberSOURCE is ready for use. If no light is produced consult the troubleshooting section.

Note:

It is recommended that a 120ohm terminating resistor be connected across DMX+ and DMX- on the last illuminator on the DMX universe or cable run.

Always 'daisy chain' a DMX cable or universe.

Never use a T joint on a DMX cable or universe, unless using an approved interface or splitter.

Never connect more than 30 devices to a single DMX universe unless using an approved interface or splitter.

For master/slave operation all slaves must be connected together and to the master BL fiberSOURCE Pavo.

BL fiberSOURCE Pavo is a 6 channel DMX device. Always leave 5 channels free when addressing multiple BL fiberSOURCE Pavo luminaires (address 007, 007, 013 etc.)

If there is no DMX data being received at the BL fiberSOURCE Pavo, the display will indicate "NO DMX" as shown in the example below for address 001.

DMX 001

No DMX



CONNECTIONS FOR 010V (CURRENT SOURCE) OPERATION

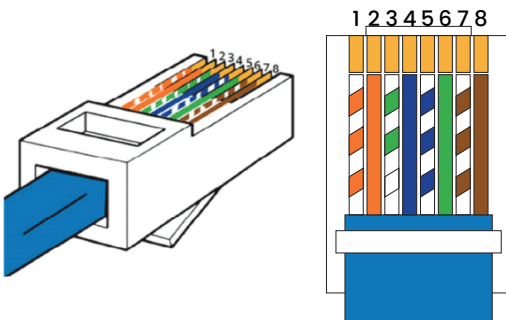
For standard BL fiberSOURCE Pavo this is a current source 010V dimming operation only. For units equipped with a Twinkle Wheel, this is a current source dimming and twinkle wheel operation. For current source, the inputs to the BL fiberSOURCE Pavo require an external control voltage between 0V and 10VDC.

There are 3 connections required; the fiber port aperture, the main power supply cable, and the 010V cables. The fiber port aperture should be connected prior to connection with the main power supply.

Connect and secure the fiber optic connector into the collar in the front of the unit, and secure using the M5 locking screw, ensuring the connector is fully inserted before tightening the screw.

Never run BL fiberSOURCE with the fiber optic connector out of the collar.

Always use an approved CAT5 cable. Connect RJ45 plugs to the RJ45 sockets on the rear of the illuminator using pin outs as detailed below. The left hand RJ45 connector controls dimming, the right hand connector controls the Twinkle Wheel motor. Ensure 010V control system is powered up and supplying a control voltage. With no 010V input the luminaire will give no light output and the Twinkle Wheel will be stationary.



Pin	Wire Color
1	White / Orange
2	Orange
3	White / Green
4	Blue
5	White / Blue
6	Green
7	White / Brown
8	Brown

RJ45 CONNECTOR (LEFT HAND) - DIMMING

RJ45 Pin No	Wire Color	Polarity	Function
1	White / Blue	+VE Positive	Positive (10V) 0-10V Current Source Dimming
8	Brown	-VE Negative	Negative (0V) 0-10V Current Source Dimming

RJ45 CONNECTOR (RIGHT HAND) - TWINKLE WHEEL CONTROL

RJ45 Pin No	Wire Color	Polarity	Function
1	White / Blue	+VE Positive	Positive (10V) 0-10V Current Source Twinkle Motor3
8	Brown	-VE Negative	Negative (0V) 0-10V Current Source Twinkle Motor

Connect the IEC power cord into the 48VDC input connector on the back of BL fiberSOURCE, and plug the unit into the surge protected main power electrical socket. Switch on power, the PSU indicator will illuminate, and BL fiberSOURCE is ready for use. If no light is produced consult the troubleshooting section.



CONNECTIONS FOR 1-10V (CURRENT SINK) OPERATION

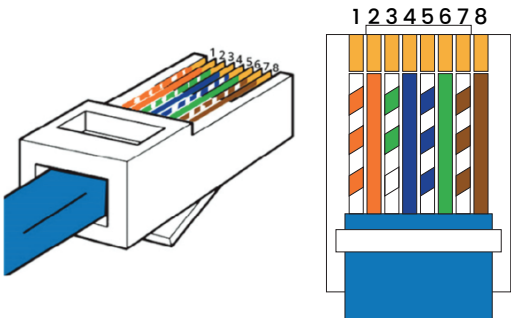
For current sink 1-10V dimming, the left hand dimming RJ45 provides current flow to a remote electronic dimmer, which modifies the current returning the BL fiberSOURCE, providing remote dimming control. Dimming is controlled between max light output and approximately 10% at minimum light output.

There are 3 connections required; the fiber port aperture, the main power supply cable, and the 1-10V cables. The fiber port aperture should be connected prior to connection with the main power supply.

Connect and secure the fiber optic connector into the collar in the front of the unit, and secure using the M5 locking screw, ensuring the connector is fully inserted before tightening the screw.

Never run BL fiberSOURCE with the fiber optic connector out of the collar.

Always use an approved CAT5 cable. Connect a RJ45 plug to the left hand RJ45 socket on the rear of the illuminator using pin outs as detailed below. Note that only the left hand RJ45 connector can be used for current sink dimming.



Pin	Wire Color
1	White / Orange
2	Orange
3	White / Green
4	Blue
5	White / Blue
6	Green
7	White / Brown
8	Brown

RJ45 CONNECTOR (LEFT HAND) - 0-10V CURRENT SINK DIMMING

RJ45 Pin No	Wire Color	Polarity	Function
3	White / Green	+VE Positive	Positive (10V) 0-10V Current Sink Dimming
8	Brown	-VE Negative	Negative (0V) 0-10V Current Sink Dimming

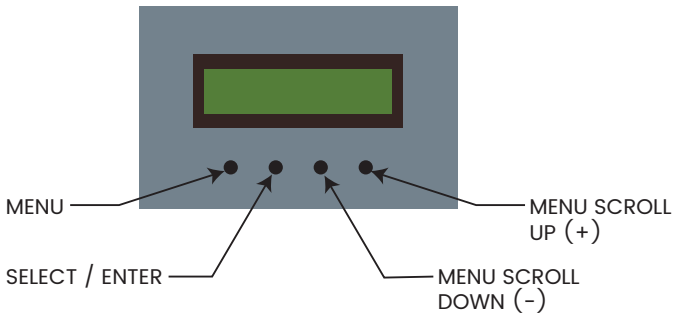
Connect the IEC power cord into the 48VDC input connector on the back of BL fiberSOURCE, and plug the unit into the surge protected main power electrical socket. Switch on power, the PSU indicator will illuminate, and BL fiberSOURCE is ready for use. If no light is produced consult the troubleshooting section.

MANUAL OPERATION

Once BL fiberSOURCE Pavo is powered up, user controlled manual functions and programming features are configurable via four rear panel push buttons and LCD display.

For all manual operation modes, the luminaire must be programmed to Master.

REAR PANEL CONTROLS



MENU → **Control mode** → SCROLL UP/DOWN → **Master** → ENTER



PROGRAM FUNCTION TABLE

MAIN MENU	SUB MENU	DESCRIPTION	INSTRUCTIONS
DMX Address	None	Sets DMX address	Use + & - buttons to display chosen address. Press enter to select
Control Mode	Master	Allows manual control of illuminator	Press enter to select
Control Mode	DMX	Allows DMX control of illuminator	Press enter to select
Control Mode	0-10V	Allows 0-10V (current source) control of illuminator	Press enter to select
Control Mode	1-10V	Allows 1-10V (current sink) control of illuminator	Press enter to select
Control Mode	Radio	Allows RF Remote control of illuminator	Press enter to select
Select Program	PA01 to PA07	If set to Master, allows pre-programmed static colors to be displayed	Use + & - buttons to display chosen color. Press enter to select
Select Program	PB01 to PB03	If set to Master, allows pre-programmed snap sequence colors to be displayed	Use + & - buttons to display chosen sequence. Press enter to select
Select Program	PC01 to PC03	If set to Master, allows pre-programmed fade sequence colors to be displayed	Use + & - buttons to display chosen sequence. Press enter to select
Program Step Time	None	If set to Master, sets the amount of time a color will display during a sequence	Use + & - buttons to display chosen time. Press enter to select
Dimming Level	None	If set to Master, allows manual dimming of light output	Use + & - buttons to display chosen light output. Press enter to select
Twinkle Speed*	Stop to 4rpm	Allows manual control of Twinkle Wheel Speed	Use + & - buttons to display chosen wheel speed. Press enter to select
Reset Options	None	When set Master, allows unit to be manually reset to factory default settings	Use + & - buttons to display YES or NO. Press enter to select
Temperature	None	Displays temperature of array	None

*Twinkle speed Main Menu option is only available with BL fiberSOURCE Pavo equipped with Twinkle Wheel

BL fiberSOURCE Pavo will remember user programmed settings when power is cycled on and off.

Factory default setting may be manually reset by following the steps below.

Warning!

This will delete all previous user program selections.

MENU → **Reset options** → SCROLL UP/DOWN **Yes** → ENTER

DEFAULT FACTORY SETTINGS

Item	Value
DMX Address	001
Control Mode	Master
Program	PA01
Program Step Time	5 seconds
Dimming Level	100%

MANUAL STANDALONE PROGRAMS MANUAL DIMMING

With the luminaire in Master Control Mode, control light output by the Dim level menu from 0% (no light output) to 100% (maximum light output)

MENU → **Dim level** → SCROLL UP/DOWN AND PRESS ENTER TO SELECT DIMMING LEVEL

MANUAL STATIC COLORS & PREPROGRAMMED COLOR SEQUENCES

With the luminaire in Master Control Mode, preprogrammed static colors and sequences can be selected as detailed below and in the following Table A: PRE-PROGRAMMED STATIC COLORS AND SEQUENCES

MENU → **Select program** → SCROLL UP/DOWN AND PRESS ENTER TO SELECT COLOR/SEQUENCE



MANUAL OPERATION

TABLE A – PRE-PROGRAMMED STATIC COLORS AND SEQUENCES

PROG	FUNCTION	EFFECT
PA01	White	White
PA02	Red	Red
PA03	Green	Green
PA04	Blue	Blue
PA05	Yellow	Yellow
PA06	Cyan	Cyan
PA07	Magenta	Magenta
PB01	Snap Color Change (1, 2, 3, 4, 5, 6, 7)	Display color for adjustable time and then 'snap' to next color
PB02	Snap Color Change (2, 3, 4, 5, 6, 7)	Display color for adjustable time and then 'snap' to next color
PB03	Snap Color Change (1, 2, 3, 4)	Display color for adjustable time and then 'snap' to next color
PC01	Fade Color Change (1, 2, 3, 4, 5, 6, 7)	Display color for adjustable time and then fade slowly to next color
PC02	Fade Color Change (2, 3, 4, 5, 6, 7)	Display color for adjustable time and then fade slowly to next color
PC03	Fade Color Change (1,2,3,4)	Display color for adjustable time and then fade slowly to next color

The display time for the color sequences PB01 – PB03 and PC01 – PC03 can be controlled by the Program Step Time menu as detailed below:

MENU → **Program step time** → SCROLL UP/DOWN AND PRESS ENTER TO SELECT DISPLAY TIME

5 Secs	10 Secs	30 Secs	1 min	2 min	5 min	10 min	30 min	60 min
--------	---------	---------	-------	-------	-------	--------	--------	--------

MANUAL OPERATION

MANUAL TWINKLE WHEEL CONTROL

With the luminaire in Master Control Mode the wheel speed can be controlled by the Twinkle Wheel menu from Stop to 4 rpm as detailed below.

MENU → **Twinkle speed
Stop** → SCROLL UP/DOWN AND PRESS ENTER TO
SELECT DISPLAY TIME

5 Secs	10 Secs	30 Secs	1 min	2 min	5 min	10 min	30 min	60 min
--------	---------	---------	-------	-------	-------	--------	--------	--------

DMX OPERATION

With the luminaire in DMX Control Mode all BL fiberSOURCE Pavo models in the range can be DMX controlled as detailed in the Program Function Table in the preceding section and in the following sections.

There are two DMX control methods available.

1 - DMX controller or control system

2 - BL fiberSOURCE Pavo Master/Slave configuration

DMX CONTROLLER/CONTROL SYSTEM

For all normal DMX operation modes, the luminaire DMX address must be set using the DMX Address menu and the luminaire must be set to DMX in the Control Mode sub menu as shown below.

DMX CONTROL MODE

MENU → **Control mode** → SCROLL UP/DOWN **DMX** → ENTER

DMX ADDRESSING

MENU → **Select program** → SCROLL UP/DOWN AND PRESS ENTER TO
SELECT ADDRESS

The BL fiberSOURCE Pavo occupies 6 DMX channels as detailed in Table B below.

When addressing multiple illuminators:

1 - If they are to function together on the same DMX channels use the same address for all

2 - If they are to function independently, always leave 5 free channels (address 001, 007, 013 etc.)



TABLE B - DMX CHANNELS

CHAN No.	FUNCTION	ADDRESS VALUE	DESIRED EFFECT
01	White LED Dimming	0-255	0-100% Dimming across range
02	Red LED Dimming	0-255	0-100% Dimming across range
03	Green LED Dimming	0-255	0-100% Dimming across range
04	Blue LED Dimming	0-255	0-100% Dimming across range
05	Twinkle Wheel at Rest at Cut Out Maximum Light	0-5	Maximum white light
05	Twinkle Wheel Rotates Back and Forth	6-255	Slow to fast
06	Normal - LED & Fan on	0-120	LED illuminated & fan running
06	Initialize / Reset	121-200	If held for 10 seconds
06	LED & Fan Off	201-255	LED & fan off after 30 second delay

DMX OPERATION

BL fiberSOURCE MASTER/SLAVE DMX CONTROL

In BL fiberSOURCE Master/Slave DMX operation, a single BL fiberSOURCE Master acts as a DMX controller and the slaves connected to it follow the Master luminaire manual controls and pre-programmed static colors and sequences. For Master/Slave to operate:

The luminaire selected as Master must be set to Master Control Mode as shown below:

MENU → **Control mode** → SCROLL UP/DOWN → **MASTER** → ENTER

The luminaire(s) selected as Slave(s) must be set to DMX Control Mode as shown below:

MENU → **Control mode** → SCROLL UP/DOWN → **DMX** → ENTER

The luminaire(s) selected as Slave(s) must be set to DMX address 001 as shown below:

MENU → **Control mode** → SCROLL UP/DOWN → **DMX address 001** → ENTER

The Slave luminaire(s) will now respond to the Master manual settings and pre-programmed static colors and sequences.

010V OPERATION

With the luminaire set to 010V in the Control Mode sub menu, all BL fiberSOURCE Pavo models in the range can be controlled as detailed in the Program Function Table in the preceding section and in the following sections and Table C.

This is a current source 010V control system, to operate the BL fiberSOURCE Pavo requires a varying control voltage input between 0 and 10VDC from a 010V controller (source) to control the dimming or Twinkle Wheel motors, or both the dimming and the Twinkle Wheel motors.

If no 010V control voltage is present on the dimming input the LED will not illuminate.

If no 010V control voltage is present on the motor input the twinkle wheel will not turn.

MENU → **Control mode** → SCROLL UP/DOWN **Control mode 0-10V** → ENTER

TABLE C - 0-10V CHANNELS

CHAN No.	FUNCTION	APPLICABLE TO VERSION	0-10V VALUE	DESIRED EFFECT
01	LED Dimming	Standard & Twinkle	0V	No light output
02	LED Dimming	Standard & Twinkle	10V	No light output
03	Twinkle Wheel Control	Twinkle	0V	Twinkle wheel at rest at cut out - maximum light
04	Twinkle Wheel Control	Twinkle	0.5V to 10V	Twinkle wheel rotates slow to fast



1-10V OPERATION

With the luminaire set to 1-10V in the Control Mode sub menu, all BL fiber-SOURCE Pavo models in the range can be controlled as detailed in the Program Function Table in the preceding section and in the following sections and Table D.

To allow current sink 1-10V dimming operation, a compatible remote electronic dimmer must be connected to the dimming input.

MENU → **Control mode** → SCROLL UP/DOWN **Control mode 1-10V** → ENTER

TABLE D – 1-10V CHANNELS

CHAN No.	FUNCTION	APPLICABLE TO VERSION	CONTROL STATE	DESIRED EFFECT
01	LED Dimming	Standard & Twinkle	Minimum	10% light output
02	LED Dimming	Standard & Twinkle	Maximum	Maximum light output

BL fiberSOURCE Pavo RF REMOTE CONTROL

With the luminaire set to Radio in the Control Mode sub menu, all BL fiber-SOURCE Pavo models in the range can be controlled with an RF Remote Control as detailed in the Program Function Table in the preceding section and in the following sections.

MENU → **Control mode** → SCROLL UP/DOWN **Control mode Radio** → ENTER

Description	Details	Notes
Power	2 x AAA batteries	
Range	98ft (30m)	Measured in free space, may be attenuated by obstructions or other RF devices
Frequency	2.4GHz	

Batteries – With The LED Illuminator powered up as described above, remove the rear cover on the Remote Controller. Taking care not to touch any of the front cover buttons, insert the batteries. If you touch the remote control buttons when inserting the batteries it WILL affect the operation of your Remote Control. If you do accidentally touch any of the buttons, remove the batteries and start again. Once the batteries are inserted, do not use the Remote Control for 3 seconds.

DO NOT TOUCH BUTTONS WHILE INSERTING BATTERIES



Test remote control as detailed on the following page. The Remote Controller is “matched” to the Illuminator at the factory. If the Remote Controller is not matched or an additional or replacement Remote Controller is required carry out the “Matching Remote to Illuminator” instructions. By matching a remote control to several illuminators more than one illuminator can be controlled by the same remote control, however, when these illuminators are set to the same color cycle, they will eventually run out of sync with each other (color cycle mismatch). If a Remote Controller is to be removed from control of a Illuminator carry out the “Unmatching Remote to Illuminator” instructions in the following text.



REMOTE CONTROL MODES AND FUNCTIONS



Mode Buttons

To revert to mode 1, either touch mode- button repeatedly to step back up through the mode numbers, or touch the color ring, then mode+. They do not operate on a loop - for example, touching the mode+ button will not eventually bring you back to mode 1.

Color Ring

Can be used to select individual colors by touching the ring, and sliding your finger around the ring.

Brightness

Can be increased or reduced in any mode using buttons 6 & 7.

Cycle Speed

Speed of color changing in modes 3 to 14 can be adjusted using buttons 5 & 8.

No.	Mode	Brighthness	Speed	Comment
01	Static white	Adjustable	Non Adjustable	Touch color ring then mode + to enter this mode at any time
02	White and colors mixed	Adjustable	Non Adjustable	Color ring control. Touch color ring to enter this mode at any time
03	All colors fade	Adjustable	Adjustable	No white
04	RGBW fade	Adjustable	Adjustable	Red, green, blue, white
05	RGBW fade	Adjustable	Adjustable	Red, green, blue, white
06	7 colors snap	Adjustable	Adjustable	White and colors mixed
07	2 colors snap	Adjustable	Adjustable	Red and white
08	2 colors snap	Adjustable	Adjustable	Blue and white
09	2 colors snap	Adjustable	Adjustable	Green and white
10	1 colors flash	Adjustable	Adjustable	Red
11	1 colors flash	Adjustable	Adjustable	Blue
12	1 colors flash	Adjustable	Adjustable	Green
13	1 colors flash	Adjustable	Adjustable	White
14	All colors snap/fade	Adjustable	Adjustable	Random



Remote Range Walk Test

Once the Illuminator is fully installed carry out a complete range walk test and record the range in the table below.

This information is essential for maintenance purposes to determine if the range/sensitivity is reducing and also to record dead areas within the Remote Controller's range due to RF obstructions and/or RF interference.

NOTE: Where an Illuminator has more than one Remote Control, reduction in operating range may be experienced when both (or multiple) Remote Controls are used simultaneously.

Description	Date	Max Range	Notes
Controller 1			
Controller 2			
Controller 3			
Dead Areas			

TROUBLESHOOTING

Problem	Probable Cause	Possible Solution
Unit is dead. No light output. Power indicator on PSU & LCD display are out	Power supply off	Check supply & reinstate
	Loose connectors	Check if all required plugs & sockets are fully mated
	Power supply cable faulty	Obtain replacement cable from BL lighting
Unit is dead. No light output. Power indicator on PSU & LCD are lit. Fans are running	Unit in Master control mode and dimming at 0%	Select Dim level menu option and manually set dimming level to give required light output
	Unit in 0-10V control mode but no 0-10V control voltage present	Check 0-10V control voltage are reinstate
	Unit in 1-10V control mode but no connection to electronic dimmer	Check 1-10V control circuit and reinstate
	Unit DMX control mode but channel 1 value set a 0	Increase channel 1 DMX controller value
	Failed array or internal component	Contact BL Lighting
Unit is dead. No light output. Power indicator on PSU & LCD are lit. Fans are not running	Unit in DMX control mode but channel 6 value set >200	Reduce channel 5 DMX controller value to 0
	Failed internal component	Contact BL Lighting
No manual control over dimming and/or twunkle wheel speed	Unit not in Master control Mode	Set to Master in the Control Mode sub menu
	Internal component failure	Contact BL Lighting



TROUBLESHOOTING – DMX MODELS

Problem	Probable Cause	Possible Solution
No DMX control over dimming and other DMX functions "No DMX" displayed	Indicates unit is not receiving a DMX signal from controller or Master Pulsar	Check DMX controller or Master Pulsar settings
	Faulty DMX cable	Check DMX cabling and repair/replace
No DMX control over dimming and other DMX functions - no DMX address displayed	Unit not in DMX control mode	Set DMX in the Control Mode sub menu
No DMX control over dimming and other DMX functions - DMX address displayed	DMX address not correctly set	Set correct DMX address
Random/wrong function DMX control over dimming and other DMX functions DMX address displayed	Incorrect DMX address set probably not enough channel space left between addresses	Set correct DMX address and leave adequate space for 6 channels of DMX between addresses

TROUBLESHOOTING – 0-10V MODELS

Problem	Probable Cause	Possible Solution
No DMX control over dimming and/or twinkle wheel speed. Unit is dead - no light output. Power indicator on PSU and LCD display are lit, fan are running	Unit i 0-10V control mode but no 0-10V control voltage present	Check 0-10V control voltage at controller and reinstate
	Fault on 0-1V cabling, reverse polarity or open circuit	Check 0-10V cabling and repair/replace

TROUBLESHOOTING – 1-10V MODELS

Problem	Probable Cause	Possible Solution
Dim level displayed at 5%, remote dimmer control has no effect	Current sink dimmer connected wrong polarity	Check and correct polarity in all remote dimming connections
Dim level displayed at maximum, remote dimmer has no effect	Open circuit on current sink dimmer connection/ cabling	Check remote dimmer cabling and repair/replace
	Incompatible current source dimmer	Disconnect remote dimmer and check output with DVM turning dimmer from minimum to maximum - if there is a varying 0-10V voltage on output, change the dimmer for a current sink type
Dim level changes with remote dimming but light output range inaccurate or reduced	Incompatible current sink dimmer	Contact BL Lighting

TROUBLESHOOTING – REMOTE CONTROL MODELS

Problem	Probable Cause	Possible Solution
No control over colors or sequences on Remote Control Unit. Remote control indicator on Remote Control Unit lights when buttons pressed - Power indicator on PSU and LCD display are lit, fans are running	Unit not in Radio control mode	Set to Radio in the Control Mode sub menu
	Remote Control Unit out of range	Operate remote Control Unit close to the Pulsar. Walk test to determine range
No control over colors or sequences on Remote Control Unit. Remote control indicator on Remote Control Unit not lights when buttons pressed - Power indicator on PSU and LCD display are lit, fans are running	Batteries in Remote Control Unit flat	Replace batteries
	Remote control Unit faulty	Contact BL Lighting

Solid State Lighting is sensitive to power fluctuations
Surge protection is highly recommended for all LED lighting products and should
be on a designated circuit to protect against premature failure
Lack of surge protection may void your warranty

Specifications subject to change without notice.
Please refer to our website at bllighting.com for current technical data.



TECHNICAL SPECIFICATION

Port Aperture Size	1-3/16 " (30mm) / M30
Material	Sheet Steel
Finish	Powdercoat grey (RAL 7024)
Dimensions (LxWxH)	8.9" (227mm) x 9.3" (236mm) x 5.7" (145mm)
Operating Environment	Indoors
Min Ambient Temp.	14°F(-10°C)
Max Ambient Temp.	122°F(50°C)
PSU Output	96W
LED Power	Up to 93W
Input Voltage	100-240V AC, 50-60Hz
Fan	Crossflow
Thermal Protection	On LED PCB thermistor
LED TYPE	RGBW
Dimming Control	Integral DMX, 0-10V & manual dimming
LED Life	50,000 hours (typical)
RF Remote Frequency	2.4Ghz
RE Remote Range	Up to 98ft (30m)
PSU Type	Desktop PSU with IEC power cord
Lumen Output	(R)1600 (G)3300 (B)650 (W)4600
Effect Wheel Options	Twinkle wheel

