BL LIGHTING
SINCE 1986

INSTALLATION & OPERATION MANUAL

Aries

BL Fibersource

DMX Option

BL LIGHTING
ILLUMINATE EVERYTHING

111 - 8838 Heather St. Vancouver, BC. Canada. V6P 3S8
P: 1-604-874-4405 E: info@bllighting.com

INTRODUCTION

Thank you for purchasing this **Aries** 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, make sure 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 related local codes.
- The illuminator should be installed in an accessible, dry, and well ventilated environment. A minimum clearance if 8" (0.2M) is required from surrounding surfaces.
- **Aries** is kitted with a mounting plate allowing for secure installation to a horizontal or vertical surface.
- Do not modify or alter the illuminator, there are no user-servicable 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).

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

The 46W RGBW LED has a 50,000 hour lamp life, and may be ordered with optional Twinkle Wheel and / or RF Remote.

Take charge of your color changing, dimming or twinkling effects with DMX control.

INSTALLATION

Power Supply Requirements

The LED Illuminator is powered from a multifunction, multi-voltage, desktop Power Supply Unit. Remove the 24V Desk Top PSU from its box. This PSU is an IEC 100-240VAC power input device.

CONNECTIONS

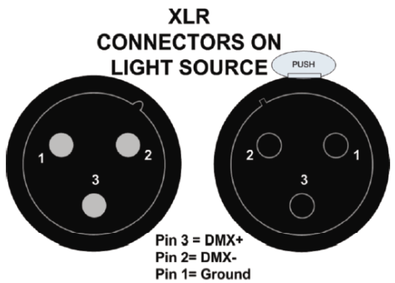
There are 3 connections required; the fiber port aperture, the main power supply cable and the DMX control cable. The fiber port aperture should be connected prior to connection to the main power supply.

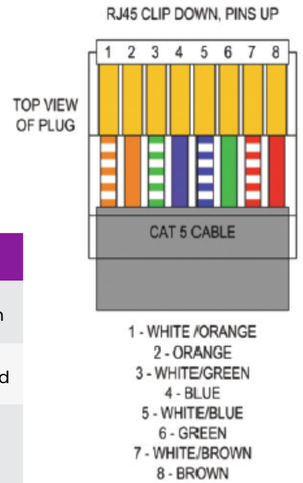
Connect and secure the fiber optic connector into the collar at the front of the unit and secure using the M5 locking screw.

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

Connect the IEC power cord into the Desk Top PSU and plug the unit into the surge protected main power electrical socket . Switch on power. The LED Indicator will illuminate and the illuminator is ready for use. If no light is produced consult the TROUBLESHOOTING section.

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





RJ45 CONNECTIONS

Pin NO	1	2	3	4	5	6	7	8
Color	White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown
Function	DMX+ (HOT)	DMX- (COLD)	Spare	Spare	Spare	Spare	Ground	Ground
DMX-XLR equivalent	Pin3	Pin2					Pin1	Pin1

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.

OPERATION

Rear Panel Control

MENU FUNCTIONS - repeated pressing the MENU button cycles the control through the following modes.

ADDRESS "ADDR"	Manually select the DMX address using up and down buttons. Press ENTER when selected
MODE "MODE"	Select either MASTER, DMX or REMOTE using up and down buttons. Press ENTER when selected. In MATER the unit will control another unit set to DMX
PROGRAM "PROG"	Manually select a range of standalone program. Press ENTER when selcted.
TWINKLE WHEEL "TWNK"	Manually control the Twinkle Effect motor speed and also switches the motor OFF. Press ENTER when selected.
TIME "TIME"	Select the length of time between color changes. Press ENTER when selected.

The left hand display shows a rotating line when DMX data is received.

Standalone Master Mode:

In this mode the illuminator (set to Master) can be used in two ways – either as a single independent unit or in a Master/Slave configuration with several illuminators connected together using DMX cables.

The Slave (set to DMX) will mimic whatever standalone programme the Master illuminator is set to. All menu functions are available in Master mode.

NOTE: for master/slave to operate, both master & slave units must be set to address 001 only.

Standalone Remote Mode:

Again in this mode the illuminator (set to Remote) can be used in two ways – either as a single independent illuminator or in a Master/Slave configuration with several illuminators connected together using DMX cables.

The Master color sequences are controlled by a RF remote control and again the Slave will mimic the Master Illuminator.

Remote Operation

Aries RF Remote Controller

Power: (2) AAA batteries (not included)

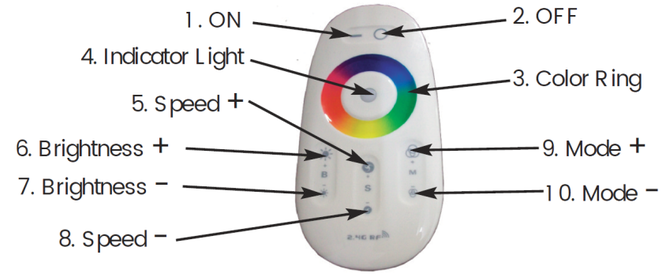
Frequency: 2.4GHz

Range: 98ft (30m) *measured in free space, may be attenuated by obstructions and / or other RF devices

Batteries – With The LED Illuminator powered up as described above, remove the rear cover on 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 effect 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 THE BUTTONS WHILST 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 in the following text. 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.



NO.	Description	Function
1	Button	Power ON
2	Button	Power OFF
3	Color Ring	Touch control all colors (White not available)
4	Indicator	Indicates Controller active when buttons pressed
5	Button	Increase color cycle speed
6	Button	Increase Brightness
7	Button	Decrease Brightness
8	Button	Decrease Color cycle speed
9	Button	Mode + Step up through Color cycle programs
10	Button	Mode - Step down through Color cycle programs

Remote Controller Operation

Matching Remote to Illuminator – Remove the power plug from the rear of the Illuminator, then replace and once the Indicator Light (4.) lights, touch button 5 within 3 seconds, the Illuminator will “blink” twice slowly indicating that the Remote Controller is matched to the Illuminator.

Once the remote is matched, follow the procedure on page 10 to put the illuminator into remote programme mode. The illuminator should then respond to remote commands.

Unmatching Remote from Illuminator - Remove the power plug from the rear of the Illuminator, then replace and once the Indicator Light (4.) lights, touch and hold button 5 within 3 seconds and the Illuminator will “blink” 9 times indicating that the Remote Controller is unmatched from the Illuminator.

OPERATION

Remote Controller Modes and Functions

NO.	Mode	Brightness	Speed	Comment
1	Static White	Adjustable	Not Adjustable	To revert to 1 (Static White) at anytime touch Color Ring then Mode+
2	White and Colors mixed	Adjustable	Not Adjustable	Color Ring control – brightness adjust Color only, not White. To revert to 2 (Color Ring) at any time touch color ring
3	All Colors fade change	Adjustable	Adjustable	No White
4	RGBW fade change	Adjustable	Adjustable	Red, Green, Blue & White
5	RGBW snap change	Adjustable	Adjustable	Red, Green, Blue & White
6	7 Colors snap change	Adjustable	Adjustable	White and Colors mixed
7	2 Colors snap change	Adjustable	Adjustable	Red & White
8	2 Colors snap change	Adjustable	Adjustable	Blue & White
9	2 Colors snap change	Adjustable	Adjustable	Green & White
10	1 Color Flash	Adjustable	Adjustable	Red
11	1 Color Flash	Adjustable	Adjustable	Blue
12	1 Color Flash	Adjustable	Adjustable	Green
13	1 Color Flash	Adjustable	Adjustable	White
14	All Colors snap & fade	Adjustable	Adjustable	Random

Mode Buttons – This is not a loop, i.e. touching the Mode+ button will not eventually bring you back to Mode 1. To revert to Mode 1, either touch Mode – button repeatedly to step back up through the Mode numbers, or touch Color Ring then Mode+

Color Ring – The Color Ring can be used to select individual colors by touching the ring and sliding your finger around the ring,

Brightness – brightness can be increased or reduced in any mode using buttons 6 & 7

Cycle Speed – speed of color cycling in Modes 3 to 14 can be adjusted using buttons 5 & 8

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	
Controller 1	Button		
Controller 2	Button		
Controller 3	Color Ring		
Dead Areas	Indicator		

DMX Mode

In this mode the Illuminator (set to DMX) can be controlled either by another **Aries** in Master mode or by a DMX controller.

PROGRAMMING

PROGRAMME DMX ADDRESS

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY
ADDR
PRESS
UP BUTTON
OR
PRESS
DOWN BUTTON
UNTIL CORRECT ADDRESS
STEADY DISPLAY
021
PRESS
ENTER BUTTON
FLASHING DISPLAY
ADDR
PRESS
ENTER BUTTON
DONE

PROGRAMME MASTER

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY
MODE
PRESS
UP BUTTON
PRESS
DOWN BUTTON
UNTIL CORRECT SETTING DISPLAYED
STEADY DISPLAY
MAST
PRESS
ENTER BUTTON
FLASHING DISPLAY
MODE
PRESS
ENTER BUTTON
DONE

PROGRAMME SLAVE/DMX

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY
MODE
PRESS
UP BUTTON
OR
PRESS
DOWN BUTTON
UNTIL CORRECT SETTING DISPLAYED
STEADY DISPLAY
-DMX
PRESS
ENTER BUTTON
FLASHING DISPLAY
MODE
PRESS
ENTER BUTTON
DONE

PROGRAMME REMOTE

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY
MODE
PRESS
UP BUTTON
OR
PRESS
DOWN BUTTON
UNTIL CORRECT SETTING DISPLAYED
STEADY DISPLAY
REMO
PRESS
ENTER BUTTON
FLASHING DISPLAY
REMO
PRESS
ENTER BUTTON
DONE

PROGRAMMING

STANDALONE PROGRAMS

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY
PROG
PRESS
UP BUTTON
OR
PRESS
DOWN BUTTON
UNTIL REQUIRED PROGRAM IS DISPLAYED
STEADY DISPLAY
P07
PRESS
ENTER BUTTON
FLASHING DISPLAY
PROG
PRESS
ENTER BUTTON
DONE

TWINKLE MOTOR SPEED

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY
TWNK
PRESS
UP BUTTON
PRESS
DOWN BUTTON
UNTIL CORRECT SETTING DISPLAYED
STEADY DISPLAY
SPD4
PRESS
ENTER BUTTON
FLASHING DISPLAY
TWNK
PRESS
ENTER BUTTON
DONE

TWINKLE MOTOR OFF

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY
TWNK
PRESS
UP BUTTON
UNTIL CORRECT SETTING DISPLAYED
STEADY DISPLAY
OFF
PRESS
ENTER BUTTON
FLASHING DISPLAY
TWNK
PRESS
ENTER BUTTON
DONE

DISPLAY TIMER

PRESS
MENU BUTTON
UNTIL
FLASHING DISPLAY
TIME
PRESS
UP BUTTON
OR
PRESS
DOWN BUTTON
UNTIL REQUIRED PROGRAM IS DISPLAYED
STEADY DISPLAY
30SC
PRESS
ENTER BUTTON
FLASHING DISPLAY
TIME
PRESS
ENTER BUTTON
DONE

STANDALONE OPERATION

Prog.	Founction	Effect
P01	Display Color 1	White
P02	Display Color 2	Red
P03	Display Color 3	Green
P04	Display Color 4	Blue
P05	Display Color 5	Yellow
P06	Display Color 6	Cyan
P07	Display Color 7	Magenta
P08	Snap color change between colors 1 ,2,3,4,5,6,7	Display color for adjustable time (display timer) and then snap to next color
P09	Snap color change between colors 1 ,2,3,4,5,6,7	Display color for adjustable time (display timer) and then snap to next color
P10	Snap color change between colors 1 ,2,3,4	Display color for adjustable time (display timer) and then snap to next color
P11	Snap color change between colors 1 ,2,3,4,5,6,7	Display color for adjustable time (display timer) and then snap to next color
P12	Snap color change between colors 2,3,4,5,6,7	Display color for adjustable time (display timer) and then snap to next color
P13	Snap color change between colors 1 ,2,3,4	Display color for adjustable time (display timer) and then snap to next color

In standalone operation – the (optional) twinkle wheel speed can be set using the menu/-mode controls. The twinkle wheel has two type options (programmed in the factory)

1. Un-segmented random holed wheel rotating continuously in one direction. When stopped the wheel will still obscure the fiber optic common end, lighting effect will remain variable.

2. Segmented random holed wheel rotating in twinkle mode either side of a clear segment. When stopped the wheel segment will align with the fiber optic common end ensuring maximum light output / 'full on' lighting effect.

DMX CHANNEL OPERATION

Prog.	Function	Values
1	Red	0-5 off/6-255 min to max
2	Green	0-5 off/6-255 min to max
3	Blue	0-5 off/6-255 min to max
4	White	0-5 off/6-255 min to max
5	Twinkle wheel	0-5 off/6-255 min to max
6	LED and fan	0-250 on, 251-255 off

NOTE: the fan is controlled by a temperature circuit on the LED driver.

PCB – switching the fan ON and OFF to optimise LED Junction temperature.

MAINTENANCE

Please Note that a record of all maintenance MUST be kept in the table below, indicating what maintenance was undertaken and when. This MUST be dated for warranty purposes.

Date	Maintenance Undertaken

TROUBLESHOOTING

Problem	Probable Causes	Remedy
Illuminator dead – LED indicator on desk top PSU not illuminated	Main power supply off	Check supply and reinstate
	Loose main power supply plug or connector	Check plugs
	PSU faulty	Replace PSU
Illuminator dead – LED indicator on desk top PSU illuminated, but LCD	Loose DC plug	Check plug
	PSU faulty	Check PSU output – Replace PSU
	Illuminator Faulty	Replace Illuminator
Illuminator no light output – LED, but LCD display on Illuminator is illuminated	If program Mode is set to "REMO", luminator may have been switched o using RF remote control	Switch array on using RF remote contro
	LED driver faulty	Replace Illuminator
RF remote controller range reduced	Remote batteries failing	Replace batteries as per User Guide
	Another RF device causing interference	Check for another RF device in same area
	RF remote control needs resetting	Remove and reinsert batteries as per User Guide
	RF remote failing	Replace remote
	Illuminator receiver failing	Replace Illuminator
Illuminator won't respond to RF remote controller	Illuminator not in Remote mode	Check mode programming and set to "REMO"
	Remote batteries failed	Replace batteries as per User Guide
	RF remote control needs resetting	Remove and reinsert batteries as per User Guide
	RF remote failed	Replace remote
	Illuminator receiver failed	Replace Illuminator
Not responding to DMX – no rotating symbol on LCD display	Illuminator not in "DMX"mode	Check mode programming and set to "DMX"
	DMX address incorrectly set	Change address on illuminator or DMX controller
	No DMX signal from controller	Check DMX controller for correct setting
	Wiring fault on DMX cables/connections	Check cable connections and repair as necessary
	DMX driver failure	Change Illuminator
Not fully responding to DMX – some but not all colors controllable, no rotating symbol on LCD display	Illuminator address out of range – not 5 available channels on DMX controller	Change address on illuminator or DMX controller to make 6 channels available
Not responding to DMX – no light output, rotating symbol on LCD display	Incorrect address set on illuminator or controller	Check addresses
	No values set in DMX channe	Check DMX controller channel values
	Channel 6 value high (251-255) switching o the array	Reduce channel 6 value to <251
	LED driver failed	Change illuminator
Unit in Master mode but Twinkle wheel not moving	Twinkle Motor switched off	Check "TWNK" mode setting
	Internal component/motor failure	Replace Illuminator
Poor light output on fiber	Unit needs cleaning	Carefully clean the LED lens with a dry cloth Clean fiber common end
	Fiber port connector not plugged in correctly	Ensure plugged in correctly and secured with locking screw

BL LIGHTING
ILLUMINATE EVERYTHING
111 - 8838 Heather St. Vancouver, BC. Canada. V6P 3S8 P: 1-604-874-4405 E: info@bllighting.com

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.