

INSTALLATION & OPERATION MANUAL

Hercules

BL Fibersource



INTRODUCTION

Thank you for purchasing this **Hercules** 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.
- **Hercules** is fitted with mounting feet 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).

Hercules is our most powerful LED illuminator, emitting over 18,900 lm of bright, white light, and capable of illuminating the longest runs of BL Fiberoptic.

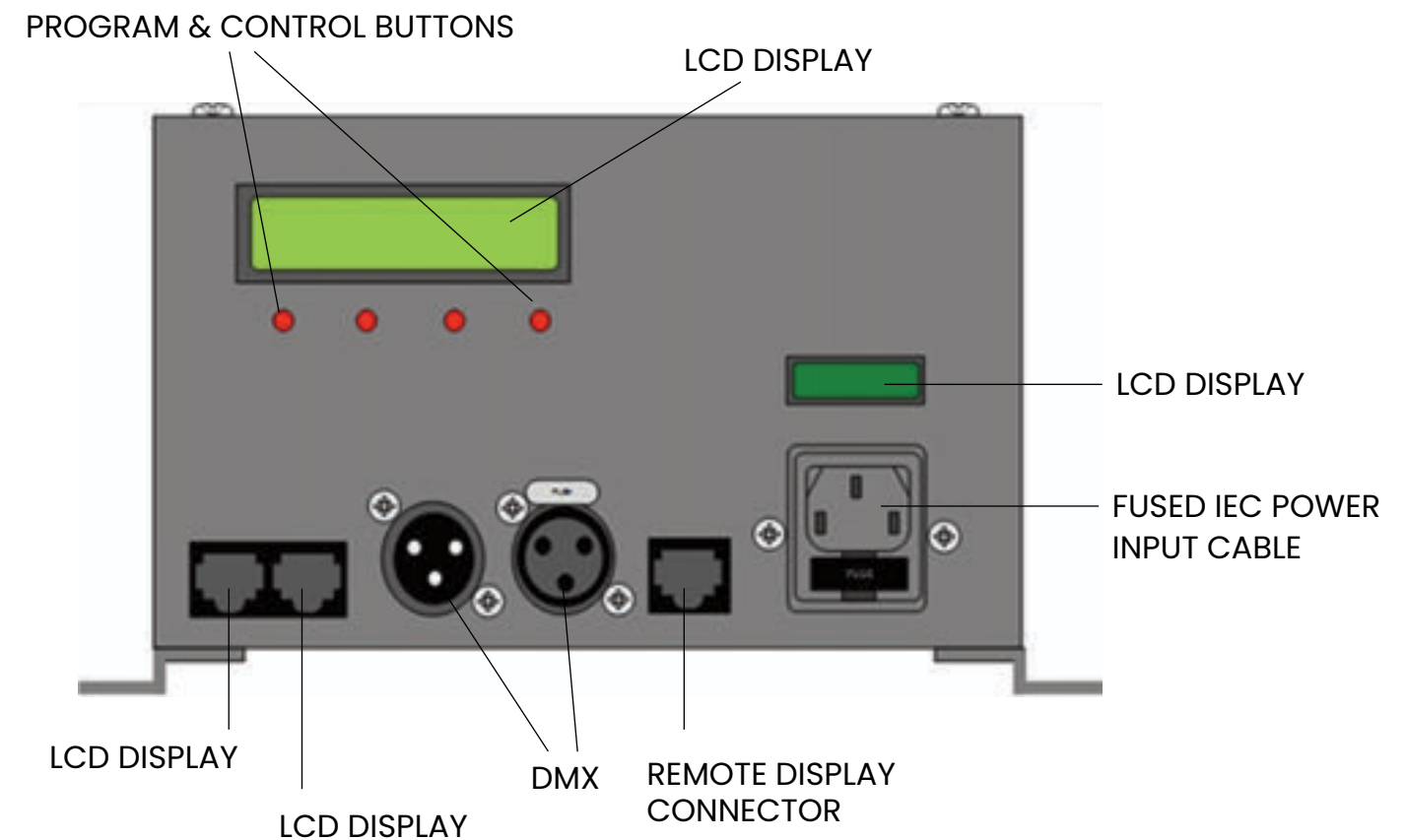
The light source is built with dual fan cooling, includes a white LED light that can be specified in a wide range of Kelvin temperatures, from warm 3000K to a cool 6500K, and has a long 50,000 hour lamp life.

Multiple units may be set to a Master / Slave configuration, and are available with 10-Color, Twinkle, or dual Color + Twinkle Wheel options.

With preset programs, manual operation is easy using the on board push button controls with rear LCD display, or take control of your dimming, color changing and twinkling effects, with 0-10V or DMX systems.

Hercules is a 150W White Light LED illuminator with optional decorative wheel capability. The **Hercules** illuminator driver PCB has all the control functionality fitted as standard. The following control functionality and configurations are available via rear panel connections, push buttons and LCD display.

INSTALLATION



Connection - for Manual Operation

There are two connections required – the fiber port aperture, and the main power supply cable. The fiber port aperture should be connected first before the mains supply. Connect and secure the fiber optic connector into the collar and the front of the unit and secure using the M5 knurled locking screw. Ensure the fiber optic connector is fully inserted before tightening the locking screw.

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

Plug the Power Input Cable into the socket, and then plug the unit into the main power supply. When powered up, the indicator will illuminate and BL Fibersource is ready for use.

If no light is produced consult the TROUBLESHOOTING section in this manual.

Connection- for Remote Manual Operation

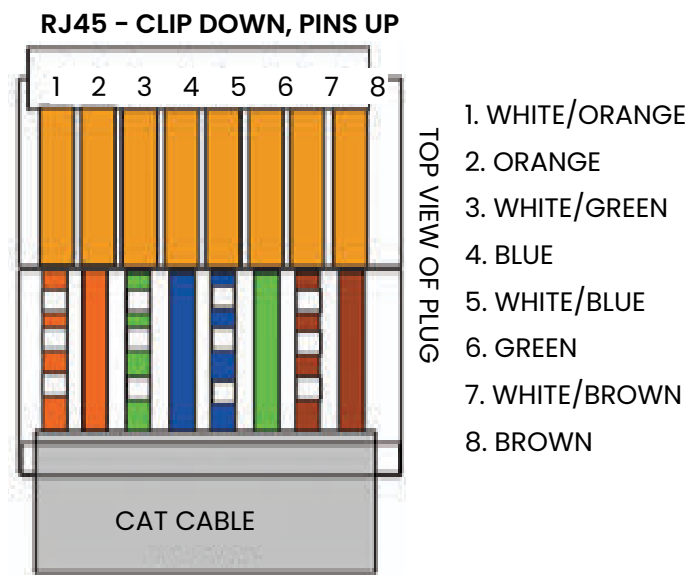
This connection method allow **Hercules** to be dimmed remotely using a simple passive potentiometer control.

There are three connections required – the fiber port aperture, the remote dimming cable and the main power input cable. The fiber port should be connected first before the main power supply. Connect and secure the fiber optic port aperture connector into the collar at the front of the illuminator, and secure using the M5 knurled locking screw. Ensure the fiber optic connector is fully inserted before tightening the locking screw. **Never run BL Fibersource with the fiber optic connector out of the collar.**

Connect the remote dimming cable (typically CAT5) to the dimmer as shown below. Wire up and connect the RJ45 plug to the **Hercules** end of the dimming cable and plug into the connector on the left hand RJ45 on the rear of the **Hercules** using pin outs as detailed below. Only the left hand RJ45 connector is used to control dimming in this way.

Plug the IEC Power Input Cable into the IEC socket, and then plug into the main power supply. Switch on the main power, the indicator will light and the illuminator is ready for use.

If no light is produced consult the TROUBLESHOOTING section in this manual.



RJ45 CONNECTOR A (LEFT HAND) - DIMMING

RJ45 Pin No.	Wire Color	Polarity	Founction
4	Blue	+VE	Positive 10V Dimming Supply
5	Blue/White	+VE	Positive (10V) 0-10V Current Source Dimming
7	Brown/White	VE	Negative (0V) Remote Potentiometer Dimming

Connection- for DMX Remote Control Operation

There are three connections required – the fiber port aperture, the DMX cables and the main power input cable. The fiber port should be connected first before the main power supply. Connect and secure the fiber optic port aperture into the collar at the front of the unit and secure using the M5 knurled locking screw. Ensure the fiber optic connector is fully inserted before tightening the locking screw. **Never run BL Fibersource with the fiber optic connector out of the collar.**

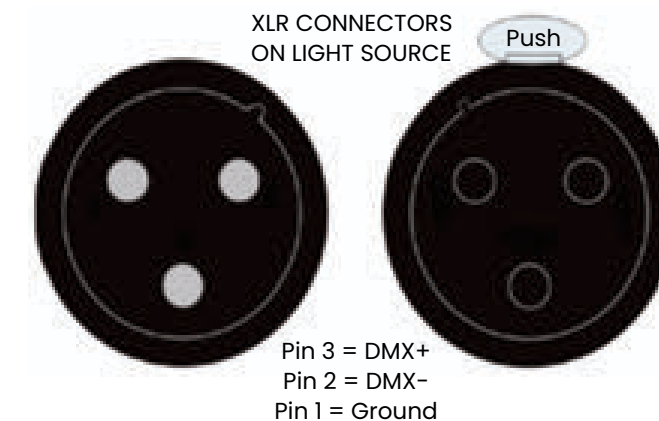
Wire up using the DMX cable from the DMX control system. Solder the cables to the 3 pin XLR male and female plug and socket using pin outs as detailed below and plug in to the connectors on the rear of the luminaire. The illustration below shows the pin orientation of the connectors fitted to **Hercules**.

Plug the IEC Power Input Cable into the IEC socket and then plug into the main power supply. Switch on the main power, the indicator will light and the illuminator is ready for use.

If no light is produced consult the TROUBLESHOOTING section in this manual.

Always use an approved DMX cable

- Always daisy chain a DMX cable or universe.
- Never use a T connection on a DMX cable or universe, unless using an approved DMX distributor or splitter.
- Never connect more than 30 devices to a single DMX universe unless using an approved DMX distributor or splitter.
- Always use a 120ohm resistor connected across DMX+ and DMX- to terminate the last DMX universe or cable run.
- This is a 2 or 5 channel device, always leave sufficient channels free when addressing multiple.
- **Hercules** luminaires i.e. address 001,003, 005 (for 2channel DMX), 001,006,011 (for 5 channel DMX)



Connection - for 0-10V (Current Source) Operation

There are three connections required – the fiber port aperture, the 0-10V cables and the main power input cable. The fiber port should be connected first before the main power supply.

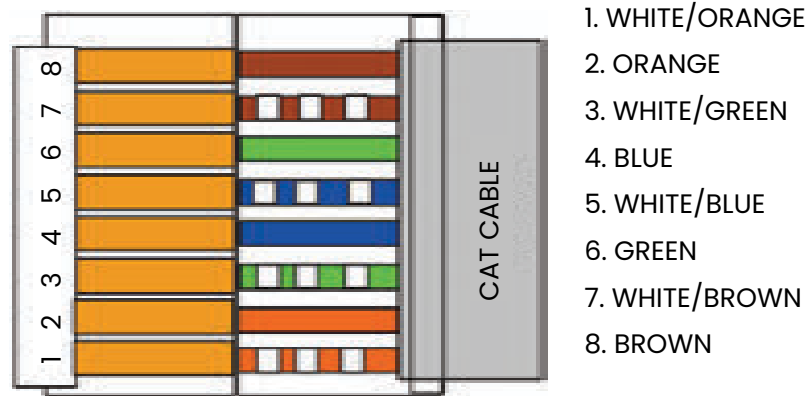
Connect and secure the fiber optic port aperture into the collar at the front of the unit and secure using the M5 knurled locking screw. Ensure the fiber optic connector is fully inserted before tightening the locking screw. **Never run BL Fibersource with the fiber optic connector out of the collar.**

Wire up and connect RJ45 plugs to the RJ45 connectors on the rear of the luminaire using pin outs as detailed below. The left hand RJ45 connector controls dimming, the right hand connector controls the Color or Twinkle Wheel. Ensure the 0-10V control system is powered up and supplying a control voltage.

Plug the IEC Power Input Cable into the IEC socket and then plug into the main power supply. Switch on the main power, the indicator will light and the illuminator is ready for use.

If no light is produced consult the TROUBLESHOOTING section in this manual.

RJ45 - CLIP DOWN, PINS UP
TOP VIEW OF PLUG



RJ45 CONNECTOR A (LEFT HAND) - DIMMING

RJ45 Pin No.	Wire Color	Polarity	Function
5	Blue/White	+VE	Positive (10V) 0-10V Current Source Dimming
7	Brown/White	-VE	Negative (0V) Remote Potentiometer Dimming

RJ45 CONNECTOR B (RIGHT HAND) - MOTOR CONTROL

RJ45 Pin No.	Wire Color	Polarity	Function
1	Orange/White	-VE	Negative (10V) 0-10V Current Source Twinkle Wheel
3	Green/White	+VE	Positive (10V) 0-10V Current Source Twinkle Wheel
5	Blue/White	+VE	Positive (10V) 0-10V Current Source Color Wheel
7	Brown/White	-VE	Negative (10V) 0-10V Current Source Color Wheel

0 - 10V NOTES:

- This is a current source 0-10V control system. The input from the 0-10V controller (source) supplies a varying control voltage between 0 and 10V to Hercules to control the dimming or the Twinkle or Color Wheel, or, to control both the dimming AND the Twinkle or Color Wheel.
- Always use an approved CAT5 cable
- With no 0-10V input BL Fibersource will give no light output and the Twinkle or Color wheel will be stationary

Connection - for 1-10V (Current Sink) Standard White Light Dimming

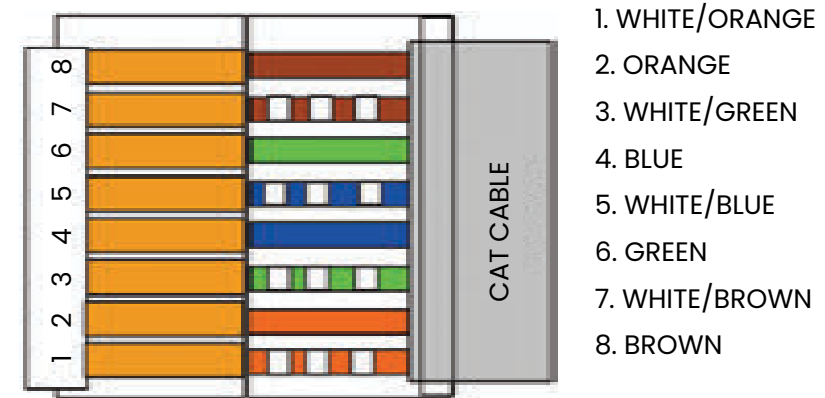
There are three connections required – the fiber port aperture, the DMX cables and the main power input cable. The fiber port should be connected first before the main power supply. Connect and secure the fiber optic connector into the collar at the front of the unit and secure using the M5 knurled locking screw. Ensure the fiber optic connector is fully inserted before tightening the locking screw. **Never run BL Fibersource with the fiber optic connector out of the collar.**

Wire up using the DMX cable from the DMX control system. Solder the cables to the 3 pin XLR male and female plug and socket using pin outs as detailed below and plug in to the connectors on the rear of the luminaire. The illustration below shows the pin orientation of the connectors fitted to the illuminator.

Plug the IEC Power Input Cable into the IEC socket and then plug into the main power supply. Switch on the main power, the indicator will light and the illuminator is ready for use.

If no light is produced consult the TROUBLESHOOTING section in this manual.

RJ45 - CLIP DOWN, PINS UP
TOP VIEW OF PLUG



RJ45 CONNECTOR A (LEFT HAND) - DIMMING

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

1-10V Notes:

- This is a current sink 1-10V control system. A 10V output from the luminaire is connected via an external 1-10V current sink dimmer varying the circuit current to control the dimming only
- Always use an approved CAT5 cable
- Ensure correct connection polarity at all times

Connection - for Master/Slave Operation

There are three connections required – the fiber port aperture, the DMX cables and the main power input cable. The fiber port should be connected first before the main power supply. Connect and secure the fiber optic port aperture into the collar at the front of the unit and secure using the M5 knurled locking screw. Ensure the fiber optic connector is fully inserted before tightening the locking screw. **Never run BL Fibersource with the fiber optic connector out of the collar.**

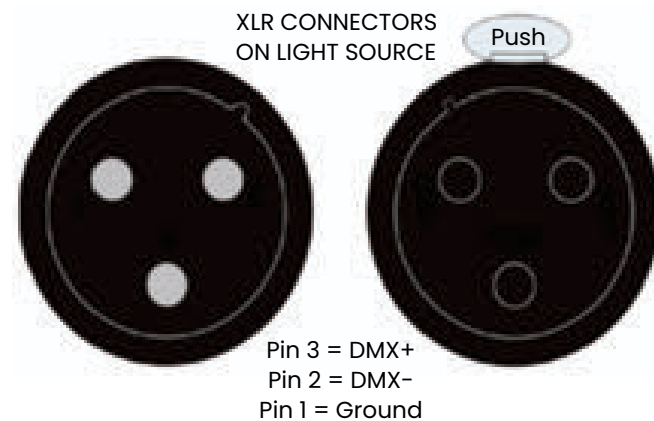
Wire up using the DMX cable linked from the Master to each Slave **Hercules**. Solder the cables to the 3 pin XLR male and female plug and socket using pin outs as detailed below and plug in to the connectors on the rear of the luminaire. The illustration below shows the pin orientation of the connectors fitted to the illuminator.

Plug the IEC Power Input Cable into the IEC socket and then plug into the main power supply. Switch on the main power, the indicator will light and the illuminator is ready for use.

If no light is produced consult the TROUBLESHOOTING section in this manual.

DMX NOTES:

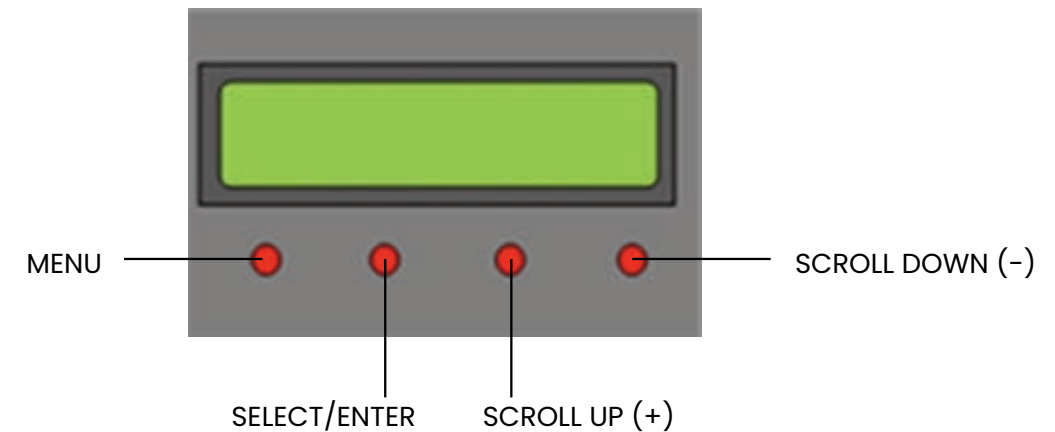
- Always use an approved DMX cable
- Always daisy chain a DMX cable or universe
- Never use a T connection on a DMX cable or universe, unless using an approved DMX distributor or splitter
- Never connect more than 30 devices to a single DMX universe unless using an approved DMX distributor or splitter
- Always use a 120ohm resistor connected across DMX+ and DMX- to terminate the last DMX universe or cable run.
- For Master slave operation all Slaves must be addressed 001



OPERATION

User Controls

Operation of the **Hercules** models is carried out via the rear display and associated push button controls as detailed below:



Once **Hercules** is powered up, user controlled manual functions and all programming features are available via the four rear panel pushbuttons as detailed in the illustration above and the following table.

IMPORTANT NOTE: Once programmed the luminaire will always revert to the programmed settings when power is recycled. However, if manual RESET is selected the luminaire will revert to factory default settings as detailed below:

- White Light** Only Dimming 100%/DMX Address 001/ Control Mode - Master
- Twinkle Wheel** Dimming 100%/DMX Address 001/ Control Mode - Master/-Wheel Speed 0.4rpm
- Color Wheel** Dimming 100%/DMX Address 001/ Control Mode - Master/- Wheel Speed 0.4rpm/ Select Program PA01/Program Steptime 5 Seconds/Wheel Speed 0.4rpm

OPERATION

Hercules	Version	Main Menu	Sub Menu	Description	Instructions
White Light Only	W	DMX Address	None	Sets DMX address	Use + & - buttons to display chosen address. Press enter to select
White Light Only	W	Control Mode	Master	Allows manual control of illuminator	Press enter to select
White Light Only	W	Control Mode	DMX	Allows DMX control of illuminator	Press enter to select
White Light Only	W	Control Mode	010V	Allows 010V control of illuminator	Press enter to select
White Light Only	W	Control Mode	110V	Allows 010V control of illuminator	Press enter to select
White Light Only	W	Dim Level	None	If set to Master, allows manual dimming of light output	Use + & - buttons to display chosen light. Output. Enter to select
White Light Only	W	Reset Options	None	When set to Master, allows unit to be manually reset	Use + & - buttons to display YES or NO. Press enter to select
Twinkle Wheel	T	DMX Address	None	Sets DMX address	Use + & - buttons to display chosen address. Press enter to select
Twinkle Wheel	T	Control Mode	Master	Allows manual control of illuminator	Press enter to select
Twinkle Wheel	T	Control Mode	DMX	Allows DMX control of illuminator	Press enter to select
Twinkle Wheel	T	Control Mode	010V	Allows 010V control of illuminator	Press enter to select
Twinkle Wheel	T	Dim Level	None	If set to Master, allows manual dimming of light output	Use + & - buttons to display chosen light. Output. Enter to select
Twinkle Wheel	T	Twinkle Speed	None	If set to Master, allows manual control of wheel speed	Use + & - buttons to display chosen speed. Press enter to select
Twinkle Wheel	T	Reset Options	None	When set to Master, allows unit to be manually reset	Use + & - buttons to display YES or NO. Press enter to select

OPERATION

Hercules	Version	Main Menu	Sub Menu	Description	Instructions
Color Wheel	C	DMX Address	None	Sets DMX address	Use + & buttons to display chosen address. Press enter to select
Color Wheel	C	Control Mode	Master	When set to Master, allows manual control of illuminator	Press enter to select
Color Wheel	C	Control Mode	DMX	Allows DMX control of illuminator	Press enter to select
Color Wheel	C	Control Mode	010V	Allows 010V control of dimming & decorative wheel	Press enter to select
Color Wheel	C	Dim Level	None	If set to Master, allows manual dimming of light output	Use +& - buttons to display chosen speed. Press enter to select
Color Wheel	C	Color Speed	None	If set to Master, allows manual control of wheel speed	Use +& - buttons to display chosen speed. Press enter to select
Color Wheel	C	Reset Options	None	When set to Master, allows unit to be manual reset	Use +& - buttons to display YES or NO. Press enter to elect
Color Wheel	C	Slect Program	PA01 to PA 20	If set to Master, allows 10 color segments to be individually snap displayed	Use + & buttons to display chosen color. Press enter to select
Color Wheel	C	Select Program	PB01 to PB09	If set to Master, allows pre-programmed color sequences to be displayed	Use + & buttons to display chosen color. Press enter to select
Color Wheel	C	Select Program	SA01 to SA09	If set to Master, allows pre-programmed snap to color sequences to be displayed	Use + & buttons to display chosen color. Press enter to select
Color Wheel	C	Select Program	CW01 to CW02	When set to Master, allows continuous rotation of color wheel CW or CCW	Use + & buttons to display chosen color. Press enter to select
Color Wheel	C	Program Steptime	None	If set to Master, allows adjustment of time in increments for step to hold the color in between sequences	Use + & buttons to display chosen time. Press enter to select

Manual Operation

Hercules models in the range can be manually controlled in a variety of ways as detailed in the Programmable Function Table in the preceding section and in the following sections.

NOTE:

- For all manual operation modes the luminaire must be programmed to Master.
- Refer to Programmable Function Table for Menu and Sub Menu availability for each model.

MENU > **Control Mode** > SCROLL UP/DOWN > **Master** > SELECT

White Light Dimming

With the luminaire in Master Control Mode, the light output can be dimmed using rear panel controls from 0% (no light output) to 100% (maximum light output)

MENU > **Master Dim: 90%** >

Twinkle Or Color Dimming & Wheel Control

Dimming:

With the luminaire in Master Control Mode, the light output can be dimmed using rear panel controls from 0% (no light output) to 100% (maximum light output)

MENU > **Master Dim: 90%** >

Twinkle Wheel Control:

With the **Hercules** in Master Control Mode, the decorative twinkle wheel can be controlled via the 'Twinkle Speed' menu as follows:

MENU > **Twinkle Speed** >

STOP	0.1 RPM	0.2 RPM	0.3 RPM	0.4 RPM	0.5 RPM	0.6 RPM	0.8 RPM	1 RPM	2 RPM	4 RPM
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NOTE: **Hercules** twinkle wheel has an open cut out segment. When moving, the wheel rotates backwards and forwards across the solid section of the wheel to ensure a smooth twinkle effect. When the wheel is stopped, the wheel will turn to stop at the open section for maximum uninterrupted light output.

Color Wheel Control

With **Hercules** in Master Control Mode, the decorative wheel can be controlled via the main and sub menus. Sub menu options are as follows:

Menu	Sub Menu	Description
Select Program	PA01	Color wheel snap to color 0 (Clear/White)
Select Program	PA02	Color wheel snap to color 10/color 1 (Blue)
Select Program	PA03	Color wheel snap to color 20/color 2 (Green)
Select Program	PA04	Color wheel snap to color 30/color 3 (Yellow)
Select Program	PA05	Color wheel snap to color 40/color 4 (Red)
Select Program	PA06	Color wheel snap to color 50/color 5 (Pink)
Select Program	PA07	Color wheel snap to color 60/color 6 (Orange)
Select Program	PA08	Color wheel snap to color 70/color 7 (Violet)
Select Program	PA09	Color wheel snap to color 80/color 8 (Magenta)
Select Program	PA10	Color wheel snap to color 90/color 9 (Apricot)
Select Program	PB01	Color change 09
Select Program	PB02	Color change 19
Select Program	PB03	Color change 29
Select Program	PB04	Color change 39
Select Program	PB05	Color change 49
Select Program	PB06	Color change 59
Select Program	PB07	Color change 69
Select Program	PB08	Color change 79
Select Program	PB09	Color change 89
Select Program	SA01	Snap color change 09
Select Program	SA02	Snap color change 19
Select Program	SA03	Snap color change 29
Select Program	SA04	Snap color change 39
Select Program	SA05	Snap color change 49
Select Program	SA06	Snap color change 59
Select Program	SA07	Snap color change 69
Select Program	SA08	Snap color change 79
Select Program	SA09	Snap color change 89
Select Program	CW01	Color wheel rotate continuously clockwise
Select Program	CW02	Color wheel rotate continuously counterclockwise

Program Steptime Mode

MENU > **Program Steptime** > SCROLL UP/DOWN TO ADJUST TIME

1 sec	5 sec	10 sec	20 sec	30 sec	1 min	2 min	5 min	10 min	30 min	60 min
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Color Speed Mode

MENU > **Color Speed** > SCROLL UP/DOWN TO ADJUST TIME

0.1 RPM	0.2 RPM	0.3 RPM	0.4 RPM	0.5 RPM	0.6 RPM	0.8 RPM	1 RPM	2 RPM	4 RPM
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DMX Operation

All **Hercules** models in the range can be DMX controlled as detailed in the Programmable Function Table in the preceding section and in the following sections.

NOTE: For all 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.

MENU > **Control Mode** > SCROLL UP/DOWN > **DMX** > SELECT

MENU > **DMX Address** > SCROLL UP/DOWN TO SELECT ADDRESS

DMX OPERATION

Color & Twinkle Wheel Versions - 5 Channel DMX Control

Channel	Function	Applicable to Model	Address Value	Desired Effect
01	LED Dimming	ALL	0-255	0-100% dimming across range
02	Color wheel variable colour 1	Color Wheel	0	Color 1 (Clear/White) displayed
02	Color wheel variable colour 2	Color Wheel	10	Color 2 (Blue) displayed
02	Color wheel variable colour 3	Color Wheel	20	Color 3 (Green) displayed
02	Color wheel variable colour 4	Color Wheel	30	Color 4 (Yellow) displayed
02	Color wheel variable colour 5	Color Wheel	40	Color 5 (Red) displayed
02	Color wheel variable colour 6	Color Wheel	50	Color 6 (Pink) displayed
02	Color wheel variable colour 7	Color Wheel	60	Color 7 (Orange) displayed
02	Color wheel variable colour 8	Color Wheel	70	Color 8 (Violet) displayed
02	Color wheel variable colour 9	Color Wheel	80	Color 9 (Magenta) displayed
02	Color wheel variable colour 10	Color Wheel	90	Color 10 (Apricot) displayed
02	Color wheel control snap to 10	Color Wheel	91-98	Color 10 (Apricot) displayed
02	Color wheel control snap to 9	Color Wheel	99-106	Color 9 (Magenta) displayed
02	Color wheel control snap to 8	Color Wheel	107-114	Color 8 (Violet) displayed
02	Color wheel control snap to 7	Color Wheel	115-122	Color 7 (Orange) displayed
02	Color wheel control snap to 6	Color Wheel	123-130	Color 6 (Pink) displayed
02	Color wheel control snap to 5	Color Wheel	131-138	Color 5 (Red) displayed
02	Color wheel control snap to 4	Color Wheel	139-146	Color 4 (Yellow) displayed
02	Color wheel control snap to 3	Color Wheel	147-154	Color 3 (Green) displayed
02	Color wheel control snap to 2	Color Wheel	155-162	Color 2 (Blue) displayed
02	Color wheel control snap to 1	Color Wheel	163-170	Color 1 (Clear/White) displayed
02	Color wheel speed CW	Color Wheel	171-212	Wheel rotates CW fast to slow
02	Color wheel speed CCW	Color Wheel	213-255	Wheel rotates CCW slow to fast
03	Color wheel duration	Color Wheel	0-255	2 secs to 60 mins across the range
04	Twinkle wheel stop at cutout	Twinkle Whee	0-5	Maximum light output displayed
04	Twinkle rotates back & forth	Twinkle Whee	6-255	Slow (0.1 rpm) to fast (4 rpm)
05	Normal LED & fan on	Both Wheel Types	0-120	LED illuminated
05	Initialise/Reset	Both Wheel Types	121-200	Initialise starts if held on for 10 secs
05	Switch LED & fans off	Both Wheel Types	201-255	LED off after 30 secs

White Light Versions - 2 Channel DMX Control

Channel	Function	Applicable to Model	Address Value	Desired Effect
01	LED Dimming	ALL	0-255	0-100% dimming across range
02	Normal LED on	White Light	0-120	LED illuminated
02	Switch LED off	White Light	201-255	LED off after 30 secs

0-10V Operation

All **Hercules** models in the range can be 0-10V (current source) controlled as detailed in the Programmable Function Table in the preceding section and in the following sections.

NOTE: For all 0-10V current source operation modes the luminaire must be set to 0-10V in the Control Mode sub menu.

MENU > **Control Mode** > SCROLL UP/DOWN > **0-10V** > SELECT

2 Channel 0-10V Control (Standard White Light, Colour Wheel & Twinkle Wheel)

Channel	Function	Applicable to Model	Address Value	Desired Effect
01	LED Dimming	Standard White Light, Color & Twinkle Wheel	0	No light output
01	LED Dimming	Standard White Light, Color & Twinkle Wheel	0.5-10	Minimum to maximum light output
02	Color wheel control snap to 1	Color Wheel	0	Color 1 (Clear/White) displayed
02	Color wheel control snap to 2	Color Wheel	0.5	Color 2 (Blue) displayed
02	Color wheel control snap to 3	Color Wheel	1	Color 3 (Green) displayed
02	Color wheel control snap to 4	Color Wheel	1.5	Color 4 (Yellow) displayed
02	Color wheel control snap to 5	Color Wheel	2	Color 5 (Red) displayed
02	Color wheel control snap to 6	Color Wheel	2.5	Color 6 (Pink) displayed
02	Color wheel control snap to 7	Color Wheel	3	Color 7 (Orange) displayed
02	Color wheel control snap to 8	Color Wheel	3.5	Color 8 (Violet) displayed
02	Color wheel control snap to 9	Color Wheel	4	Color 9 (Magenta) displayed
02	Color wheel control snap to 10	Color Wheel	4.5	Color 10 (Apricot) displayed
02	Color wheel speed CW	Color Wheel	5-7.5	Wheel rotates CW fast to slow
02	Color wheel speed CCW	Color Wheel	7.6-10	Wheel rotates CCW slow to fast
02	Twinkle wheel stop at cutout	Twinkle Wheel	0	Maximum light output displayed
02	Twinkle rotates back & forth	Twinkle Wheel	0.5-10	Slow (0.1 rpm) to fast (4 rpm)

0-10V Operation

Only **Hercules** standard white light models can be 1-10V (current sink) dimmed as detailed in the Programmable Function Table in the preceding section and in the following sections.

NOTE:

- For all 1-10v current sink dimming the luminaire must be set to 1-10V in the Control Mode sub menu.
- Dimming control at min. will give approximately 10% light output – it will not dim down to zero.

MENU > **Control Mode** > SCROLL UP/DOWN > **0-10V** > SELECT

1 Channel 0-10V Dimming Standard White Light

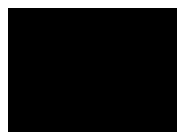
Channel	Function	Applicable to Model	010V Value (DC Volts)	Desired Effect
01	LED Dimming	Standard White Light	1-10	Min. (10%) to max. light output

Master/Slave Operation

All **Hercules** models in the range can be Master Slave DMX controlled as detailed in the Programmable Function Table in the preceding section and in the following sections.

NOTE :

- For all Master operation modes the luminaire selected must be set to Master in the Control Mode sub menu.
- For all Slave operation modes the luminaires selected must be set to DMX in the Control Mode sub menu and the DMX Slave address must be set using the DMX Address menu to address 001.
- Once the Master and Slaves have been set up as above, the Slaves will follow all the manual functions of the Master



MAINTENANCE

Maintenance Log

Date	Date Maintenance Undertaken

Note: A record of all maintenance MUST be kept in the table above, indicating what maintenance was undertaken and when. This MUST be dated for warranty purposes.

TROUBLE SHOOTING

Problem	Probable Cause(s)	Remedy
ALL MODELS Unit is dead - no light output; main power indicator & LCD display is out	Mains supply off	Check supply and reinstate
	Loose connector(s)	Check plugs & sockets are fully mated
	Plug blown fuse (UK)	Check fuse & replace if necessary
	IEC blown fuse	Check fuse & replace if necessary
	Mains supply cable faulty	Get replacement cable from BL Lighting
ALL MODELS Unit is dead - no light output; mains power indicator & LCD display are lit, fans are running	Unit in Master mode & dimming at 0%	Select dim level option & manually set dimming level
	Unit in 0-10V mode, but no control voltage	Check 0-10V control voltage & reinstate
	Unit in DMX mode but channel 1 value at 0	Increase channel 1 DMX controller value
	Failed array or internal component	Contact BL Lighting
ALL MODELS Unit is dead - no light output; mains power indicator & LCD display are lit, fans not running	Unit in DMX control mode but channel 5 value set >200	Reduce channel 5 DMX controller value to 0
	Failed internal component	Contact BL Lighting
MANUAL MODELS No manual control over dimming &/or decorative wheel speed	Unit not in Master control mode	Set to Master in the Control Mode sub menu
	Failed internal component	Contact BL Lighting
DMX MODELS No DMX control over dimming & DMX functions - 'no DMX' displayed	Indicates unit is not receiving a DMX signal from controller or Master Hercules	Check DMX controller or Master Hercules settings
	Faulty DMX cable	Check DMX cabling & repair/replace
DMX MODELS No DMX control over dimming & functions - no DMX address displayed	Unit not in DMX control mode	Set to DMX in the Control Mode sub menu
DMX MODELS No DMX control over dimming & functions - DMX address displayed	DMX address not correctly set	Set correct DMX address
DMX MODELS Random/wrong function; DMX control over dimming & functions - DMX address displayed	Incorrect DMX address set, probably not enough channel space left between addresses	Set correct DMX address & leave adequate space for 5 channels of DMX in between

TROUBLE SHOOTING

Problem	Probable Cause(s)	Remedy
1-10V MODELS Dim level displayed at 5%, remote dimmer control has no effect	Current sink dimmer connected, wrong polarity	Check & correct polarity in all remote dimming connections
1-10V MODELS Dim level displayed at max., remote dimmer control has no effect	Open circuit on current sink dimmer connection/cabling	Check remote dimmer cabling & repair/replace
	Incompatible current source dimmer	Disconnect remote dimmer & check output with DVM turning dimmer from min. to max. - if there is varying 0-10V voltage, change dimmer for a current sink type
1-10V MODELS Dim level changes with remote dimming, light out put range inaccurate or reduced	Incompatible current sink dimmer	Contact BL Lighting
0-10V MODELS No control over dimming and /or wheel speed. Unit is dead, no light output, main power indicator & LCD display are lit, fans are running.	Unit in 010V control mode but no 0-10V control voltage present	Check 010V control voltage at controller & reinstate
	Fault on 0-10V cabling, reverse polarity or open circuit	Check 0-10V cabling & repair/replace
REMOTE MANUAL No control over dimming no light output OR full light output. Main power indicator & LCD are lit, fans are running	Unit in 0-10V control mode but fault on remote cabling, reverse polarity or open circuit	Check remote cabling and repair/replace

SPECIFICATIONS

Description	Details
Port Connector Size	1.18" (30mm) diameter
Fiber Type	Englight & Sidelight (BL Fiberoptic Series)
Mains Supply Voltage	100-240V AC, 50-60Hz
Mains Supply Fuse	5A, 20mm
LED Power	150W
Led Type	White light
Mains Power (max.)	170W
>80 CRI	3000K (17,974lm) 4000K (18,438lm) 5000K (18,653lm) 5700K (18,840lm) 6500K (18,992lm)
Control Functionality	Manual / DMX / 0-10V / 1-10V Remote Manual Dimming / Separate Feed
DMX	Decorative Models: User addressable 5 channels (0-255) White Light Models: 2 channels (dimming & unit control)
LED Life	50,000 hours typical
Operating Environment	Indoor / dry
Min Ambient Temperature	-10°C
Max Ambient Temperature	+45°C
Material	Aluminium
Finish	Grey
Dimensions (L x W x H)	White Light Only: 12.1" x 7.7" x 6.2" (308 x 192 x 158mm) Twinkle & Color Wheel: 12.1" x 8.7" x 7.4" (308 x 221 x 187mm)

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 blighting.com for current technical data.