

USER MANUAL



ColourPoint

Mk2

Battery Wireless Uplighter



Contents

Product Modification	5
Safety Information	5
Before You Begin.....	5
Product Overview	6
Features	6
Supplied with Hire.....	6
Safety	6
Getting Started.....	7
Power	8
Ventilation and Mounting.....	8
Operation	8
Power	8
Reset	8
Charging	8
Control Panel.....	9
External Power	9
Function Modes	10
Cust Col	10
Static Operation	11
DMX Operation	12
DMX Master Operation.....	12
DMX Slave Operation.....	12
DMX Mode	12
DMX Start Address.....	13
Built-In Effects.....	13
W-DMX Pairing and Unpairing.....	13
W-DMX Link LED	13

Unpairing from all W-DMX Transmitter units.....	14
Pairing with a W-DMX Transmitter unit or ColourPoint Master unit	14
Pairing with a CORE Point15, Point20 or Point30 Master unit	14
Additional Settings	15
Power Mode.....	15
Brightness Control.....	15
PWM Frequency Control.....	15
Keypad Lock	15
Mechanical	16
Dimensions.....	16
Antenna.....	16
Locking	16

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Disclaimer

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Product Modification



This CORE Lighting product has been designed and manufactured to meet the strict requirements of UK, EU and International safety regulations. Any unauthorised modifications to the product including replacement of parts with non-standard parts could compromise safety and result in the product being non-compliant with relevant standards. If the hirer modifies the unit in any way without consent from ABC Production Services, they will be liable for a repair charge and additional hire charges while the unit is out of use.

There are no user serviceable parts within this product.

Safety Information

Important safety information is contained within this manual. Please read all instructions fully prior to installation and use of the equipment.

Internationally recognised symbols are used within the document to highlight important messages as follows:

	Critical installation or usage information. Failure to comply with this information may cause damage to the product, third party equipment or cause harm or injury.
	Important installation or usage information. Failure to comply with this information may cause the product to operate incorrectly.

Note: Restrictions apply to transporting this equipment on aircraft due to the lithium polymer batteries having capacity greater than 100Wh. Please consult IATA Packing Instructions for further information.

Before You Begin

The CORE ColourPoint fixture is a battery-powered wireless up-lighter capable of providing portable and instant architectural and feature lighting anywhere. With high-powered red, green, blue and white LEDs the fixture is capable of producing any colour or shade of white using combinations of those LEDs. Ideal for illuminating buildings in colour, both indoors and outdoors, the fixture is powerful enough to light buildings of 3 or 4 storeys. Lighting effects may be created by connecting to effects generators such as lighting desks or other CORE Master units using the in-built Wireless DMX receiver. Simply connect wirelessly to the transmitter of the generator.

The product is designed and manufactured in the UK.

Product Overview

Features

- High powered 2,000 lumen RGBW LEDs equivalent to 5300 Lux @ 2m
- 4 x Cree high-powered RGBW LED arrays
- Lithium Ion Battery reducing unit weight to just 4.0Kg
- LEE Filter Colour Library, separate RGBW control and built-in colour programs.
- Wireless DMX wireless master and slave control (2.4GHz W-DMX)
- Cable DMX output of full universe– unit acts as Wireless DMX receiver to cable DMX converter
- 4 or 5 Channel DMX operation
- Variable PWM frequency for TV work
- Intuitive LCD menu
- Designed and Manufactured in the UK
- Operating temperature range -20°C to +45°C or -4°F to +113°F

Supplied with Hire

When hiring these units, the following will be supplied. Please contact ABC Production Services Ltd. immediately if there are any signs of product damage or parts missing.

Single Unit:

1x ColourPoint wireless LED fixture
1x Stainless steel shroud
1x Manual

Charging Case of Six Units:

6x ColourPoint wireless LED fixture
6x Stainless steel shroud
1x Manual
1x Flightcase
1x 13A Powercon power cable

Safety

- AVOID direct eye exposure to the light source when illuminated
- DO NOT submerge this product in water or expose to excessive water spray
- DO NOT hang this product other than by the means indicated in this manual
- DO NOT leave any flammable material near product whilst operating or charging
- ALWAYS use the supplied charger or charging case
- ALWAYS ensure the charger is connected to the specified voltage
- ALWAYS ensure the charging case lid is open whilst plugged into mains supply
- NEVER connect this product or charger to a dimmer pack
- DO NOT operate this fixture if it appears damaged in any way
- DO NOT operate this fixture where the ambient temperature exceeds 45°C



In the unlikely event that your product develops a fault, please contact ABC Production Services Ltd. Do not attempt to repair yourself unless specifically instructed by ABC Production Services Ltd.

Getting Started



Power

The battery charger may be included as an accessory for individually hired fixtures or built into the flight case for the charging of multiple fixtures. In either case the supply has an input voltage range of 100-240 VAC at 50/60Hz.



Ensure the product is used only with correct voltage and frequency of mains supply.



Never connect the charger or charging case to a dimmer circuit, even when a dimmer has been configured for 'non-dim' or 'switched operation'.

Ventilation and Mounting



Always use the product in a safe position and ensure there is enough room around it for ventilation. **Never close the lid during charging; this allows escape of heat.**




Operation

Power

- Push and hold this power button for >1 second to switch the unit ON or OFF.
- The display will show "Core Lighting" and software version for a few seconds before starting.
- The display backlight will extinguish after a short time to reduce power use



Reset

- **To reset** the unit, hold down the up  and down  buttons then press the power  button. When the unit starts up, release the buttons and the unit will start up as usual and followed by the message "MASTER RESET" to confirm the unit has reset.

Charging

- **Turn the unit OFF** before connecting to the charger
- Only use the supplied charger or charging case
- For case chargers the unit should be inserted into the case.
- External chargers should be plugged into the 5-pin connector on the front of the unit.
- For best results recharge battery fully before storage
- When charging the battery in the charging case, **ensure the case remains open.**
- Switch off the charger unit and unplug once fully charged
- Whilst charging the LED indicator will illuminate in AMBER
- Once fully charged the LED indicator will show GREEN



Charging Charged



DO NOT use any charger other than the unit supplied with the ColourPoint.



When using a charging flight case, ensure the unit is pushed fully down on the charging connector and the protruding screws are located in their positioning holes. The charge light on top of the unit should illuminate to signify this has been done.

Control Panel



Enables changes to FUNCTION or SETTINGS menus
Exits from the current option or menu



Navigates backwards through the menu list
or decrements a numeric value
or navigates back through available values



Navigates forward through the menu list
or increments a numeric value
or navigates forward through available values



Enters the currently displayed menu option
or saves the currently displayed value



Wireless key to enable linking to a W-DMX transmitter in "Slave" mode
or in "Master" mode it adds new slaves



Power button turns the unit on and off

External Power

- A separately available power supply is available as an accessory to drive the ColourPoint from mains voltage 100-250VAC 50/60Hz.
- Connect this to the charging/power port in the front of the unit.
- The device supplies 24VDC to the ColourPoint which replaces battery power.
- Battery is disconnected whilst the Power Supply is plugged in so will not be charged or discharged.

Function Modes

There are three modes of Operation, accessed through the **FUNCTION** menu;

Cust Col	This mode allows the fixture to output a static Red, Green, Blue or White colour, or any combination thereof; each colour may be set to any value 0 to 255. Any W-DMX signal, if present, is ignored.
Static	In this mode the fixture outputs a static LEE or preset 'cc' colour as selected. The selection is remembered if the unit is switched off then back on or put into another mode. Any W-DMX signal, if present, is ignored.
DMX	In this mode the fixture is under control of Wireless DMX so may be controlled by a W-DMX compatible device or DMX compatible device with a W-DMX transmitter attached. The options available within DMX mode are described in more detail below.

To change Function press . Use the & keys to select "CHANGE Function" and press to accept. Then use the & keys to select the required function as above and press .

The three modes of operation are discussed in more detail below.

All of these adjust the brightness settings for each colour.
Information for more technical users: the brightness is set using Pulse Width Modulation (PWM).
The PWM frequency is 610Hz.

Cust Col

When in Custom Colour mode the display indicates the current selected colour.
Simply press to step through the colours or accept a colour value. Use the & keys to change the value.

Value range is from 000 to 255, 000 turning that particular colour off and 255 being full brightness

Tip: Mix red & blue for purple/pink


Tip: Mix red & green with White for warm shades of white

Tip: Mix red & green for orange/yellow



FUNCTION Cust Col
Set Col. Red: 255
Set Col. Grn: 000
Set Col. Blu: 128
Set Col. Wht: 050



Static Operation

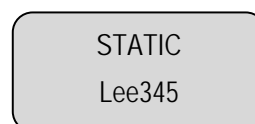
When in STATIC mode the display indicates the current selected colour.

To change the current selected colour press .

The last character of the currently selected colour is underlined

Use the  &  keys to select a colour from the built-in library of 70 pre-programmed colours, including 60 popular LEE Filter Colours

The colour changes when cycling through the available options. The selected colour is only saved when  is pressed. If  is not pressed, the colour reverts to the previously selected colour after 8 seconds.



Available Colours:

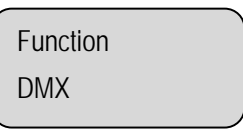
cc001	White	Lee075	Evening Blue	Lee157	Pink
cc002	Half Flesh Tone	Lee089	Moss Green	Lee159	No Colour Straw
cc003	Full Flesh Tone	Lee100	Spring Yellow	Lee162	Bastard Amber
cc004	Half Mint Green	Lee101	Yellow	Lee170	Deep Lavender
cc005	Mint Green	Lee102	Light Amber	Lee174	Dark Steel Blue
cc006	Half Ice Blue	Lee103	Straw	Lee181	Congo Blue
cc007	Full Ice Blue	Lee104	Deep Amber	Lee192	Flesh Pink
cc008	Soft Red	Lee106	Primary Red	Lee199	Regal Blue
cc009	Soft Green	Lee107	Light Rose	Lee323	Jade
cc010	Soft Blue	Lee108	English Rose	Lee341	Plum
		Lee113	Magenta	Lee345	Fuchsia
Lee002	Rose Pink	Lee115	Peacock Blue	Lee353	Lighter Blue
Lee009	Pale Amber Gold	Lee117	Steel Blue	Lee652	Urban Sodium
Lee010	Medium Yellow	Lee118	Light Blue	Lee722	Bray Blue
Lee013	Straw Tint	Lee119	Dark Blue	Lee724	Ocean Blue
Lee015	Deep Straw	Lee121	Lee Green	Lee738	Jazz Green
Lee017	Surprise Peach	Lee126	Mauve	Lee765	Lee Yellow
Lee019	Fire	Lee127	Smoky Pink	Lee776	Nectarine
Lee020	Medium Amber	Lee135	Deep Amber Gold	Lee777	Rust
Lee024	Scarlet	Lee136	Pale Lavender	Lee779	Bastard Pink
Lee026	Bright Red	Lee138	Pale Green	Lee789	Blood Red
Lee046	Dark Magenta	Lee139	Primary Green	Lee793	Vanity Fair
Lee058	Lavender	Lee147	Apricot	Lee795	Magical Magenta
Lee068	Sky Blue	Lee153	Pale Salmon		




DMX Operation

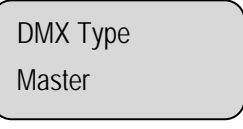
CORE ColourPoint is equipped with a Wireless Solution W-DMX wireless radio transmitter and receiver. This allows the fixture colour to be set up by or synchronized with sequences produced by a DMX lighting controller or other ColourPoint unit when in Receive, or SLAVE mode.

Alternatively when in MASTER mode the unit can be linked to many Slave units which will then duplicate everything output from the Master.


If you are not using a ColourPoint as a Master unit then a compatible W-DMX transmitter attached to a DMX controller is necessary. This could be a lighting desk, a specific controller, or a CORE Point 15, 20 or 30 Master unit.



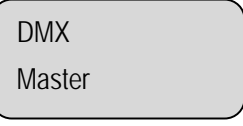
When the 'Function DMX' screen is shown, after a few seconds the screen automatically reverts to the last mode used, either Master or Slave. By pressing the  key the 'DMX Type' screen is shown, which allows the user to select the opposite mode using  or  key.



DMX Master Operation

Once Master mode is set, the Master may be linked to any number of unlinked slaves by pressing the Wireless  key momentarily.

The adjacent link light will flash for a few seconds whilst it links to the unlinked slave units then go solid.

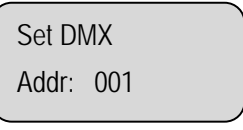


DMX Slave Operation

When in DMX Slave mode the display will show the current active DMX Start Address so the unit can be controlled from elsewhere.

The number of channels occupied is depends on the "**DMX MODE**" setting (4 or 5 channels may be used by the fixture).

In this mode the entire universe is output on a side connector pin, for which a connector cable is available to hire from ABC Production Services for connection to other non-wireless fixtures.







DMX Mode

The ColourPoint has 2 modes of operation.

From the "**CHANGE Settings**" menu select the "**5th DMX CHANNEL**" option as follows:




Mode	Chan	Function	Notes
5 th CHAN Off	1	Red	This mode disables master dimmer and strobe functions. Each of the colour values may be set from 0 to 255.
	2	Green	
	3	Blue	
	4	White	
5 th CHAN M. Fader	1	Red	This mode enables the fixture's overall colour, set on channels 1 to 4, to be dimmed. Values are 0 to 255, where 255 represents 100% output.
	2	Green	
	3	Blue	
	4	White	
	5	Dimmer (0-100%)	





DMX Start Address

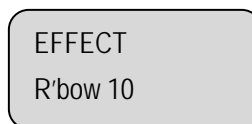
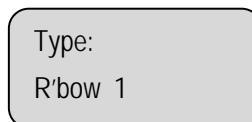
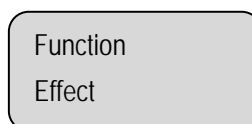
To set the DMX start address press the  key when the display shows the current address. Use the  or  keys to select the new start address then the  key to confirm.

Built-In Effects

The ColourPoint is equipped to generate a number of special effects as a stand-alone unit when DMX is placed in Slave Mode or will output these to a number of connected slave units when DMX is in Master Mode.

By pressing the  key the last used effect type is brought up, which can then be changed using the  and  keys.

By pressing the  key to confirm the effect type, the speed can be adjusted from a range 1 to 10 using the  and  keys. When confirmed with the  key the screen reverts to show the effect and speed.



W-DMX Pairing and Unpairing

ColourPoint units need to be manually paired with the lighting control unit equipped with a W-DMX transmitter. This could be a lighting desk with DMX Output, or a CORE Point15/20/30 Master unit with a W-DMX transmitter inside. This allows a group of ColourPoint fixtures to be controlled from the lighting desk or Point15/20/30 Master using the built-in colour cycles (Inside Point15/20/30). Or set up individually selected colours across many units at once from just one Master unit.

W-DMX Link LED


The W-DMX link status is shown by the LINK LED, this provides information on the W-DMX link. This follows the same status indication as all Wireless Solution W-DMX products.




Description for operation in Slave mode:

OFF	If the LED is OFF the ColourPoint is not paired with a W-DMX transmitter
FLASHING	If the LED is FLASHING the ColourPoint is paired with a W-DMX transmitter, but the transmitter is switched off.
STEADY ON	If the LED is STEADILY ILLUMINATED the ColourPoint is paired with, and ready to receive data from a W-DMX transmitter. This is a fully paired and fully functioning system.
UNEVEN FLASHING	If the LED is FLASHING unevenly, the ColourPoint could be paired with a W-DMX transmitter, the transmitter is switched on, but no DMX Input to the transmitter.


Unpairing from all W-DMX Transmitter units

- Switch on the ColourPoint.
- Press and hold the  key until the W-DMX LINK LED is turned OFF.
- ColourPoint is now **unpaired** from the W-DMX transmitter.

Pairing with a W-DMX Transmitter unit or ColourPoint Master unit

- Switch on the ColourPoint.
- Ensure the ColourPoint is **unpaired** from any other transmitter (the LINK LED is OFF) – above.
- Ensure the transmitter is within range and switched on. Press its 'FUNCTION' button for more than 1s. On a ColourPoint Master unit simply hold down the  key momentarily.
- The transmitter will scan for all unlinked receivers for around 10 seconds; the LED will flash.
- If pairing is successful the LINK LED on the ColourPoint will illuminate.
- ALL Unlinked ColourPoint units (and other Unlinked W-DMX units too) may be linked at the same time. No apparent limit to the number being paired.
- For receiver units not to be paired with this transmitter, simply switch off those unwanted receivers before this pairing process. They may be paired with a different transmitter after switching on again and repeating the pairing process with the new transmitter.

Pairing with a CORE Point15, Point20 or Point30 Master unit

- Switch on the ColourPoint.
- Ensure the ColourPoint is **unpaired** from any other transmitter (the LINK LED is OFF) – above.
- Ensure the Master unit is within range and switched on.
- Select MODE MSTR → MSTR DMX → Add Unit → '+' to select 'YES' →  to confirm.
- The transmitter will scan for all unlinked receivers for around 10 seconds; the LINK LEDs flash.
- If pairing is successful the LINK LED on the ColourPoint will illuminate.
- ALL Unlinked ColourPoint units (and other Unlinked W-DMX units too) may be linked at the same time. No apparent limit to the number being paired.
- For receiver units not to be paired with this transmitter, simply switch off those unwanted receivers before this pairing process. They may be paired with a different transmitter after switching on again and repeating the pairing process with the new transmitter.

For successful linking the receiver must fulfill the following conditions:

Distance to transmitter (in free air)

- Less than 200m for Micro model transmitter
- Less than 500m for BlackBox or WhiteBox transmitter

Position above obstacles (e.g. crowds and tress)

- Minimum 1m



Pairing to a transmitter is remembered after power off or the battery is depleted.

This allows the system pairing to be set up in a warehouse and the whole system simply switched on at the site, which makes deployment very simple.

Additional Settings

A number of additional settings may be accessed within the menu system:

Power Mode

Under the **"CHANGE Settings"** menu ColourPoint has two power modes that can be selected:

Power LongLife 50% Power

Power Normal Full Power

The "Normal" option provides maximum light output at the cost of reduced battery life.

"LongLife" reduces the LED output by 50%, therefore enables 2 x running period for ALL FUNCTIONS, whether stand-alone or DMX.

To change the power mode press the **FN** key and use the **DOWN** and **UP** keys to select **"CHANGE Settings"** then press the **ENTER** key. Use the **DOWN** and **UP** keys to select **"POWER MODE"** and press **ENTER** to select.

Use the **DOWN** and **UP** keys to toggle between "Norm" and "LongLife" then press **ENTER** to save changes. This setting affects all Static, Cust Colr and DMX modes so that the battery life of each unit can be individually set, irrespective of what's controlling it.

Brightness Control

Under the **"CHANGE Settings"** menu ColourPoint has a separate brightness control that can control the output of the unit in stand-alone mode:

The value may be changed from 0 to 100% in five steps:

0%, 20%, 40%, 60%, 80%, 100%.

Press the **FN** key and use the **DOWN** and **UP** keys to select **"CHANGE Settings"** then press **ENTER** to accept.

Use the **DOWN** and **UP** keys to select **"BRIGHTNS CONTROL"** and press **ENTER** to select.

Use the **DOWN** and **UP** keys to toggle between "0%" and "100%" then press **ENTER** to save changes. This setting adjusts Static and Cust Col modes only.

DMX mode remains unchanged as the unit remains under external control.

PWM Frequency Control

For HD TV work ColourPoint is equipped with an option to adjust the PWM frequency of the LEDs to prevent 'beating' with the TV scan frequency.

To enable soft dimming press **FN** and use the **DOWN** and **UP** keys to select **"CHANGE Settings"** then press **ENTER** to select.

Then use the **DOWN** and **UP** keys to select **"PWM Freq"** and press **ENTER** to select from value 488Hz to 3.9kHz.

Press **ENTER** to save changes and the screen will revert to showing the 'Function' mode.



Beware that when using the higher frequencies the resolution of the colour intensity steps is reduced, so the effect of colour changing can become less smooth and more 'steppy'.

Keypad Lock

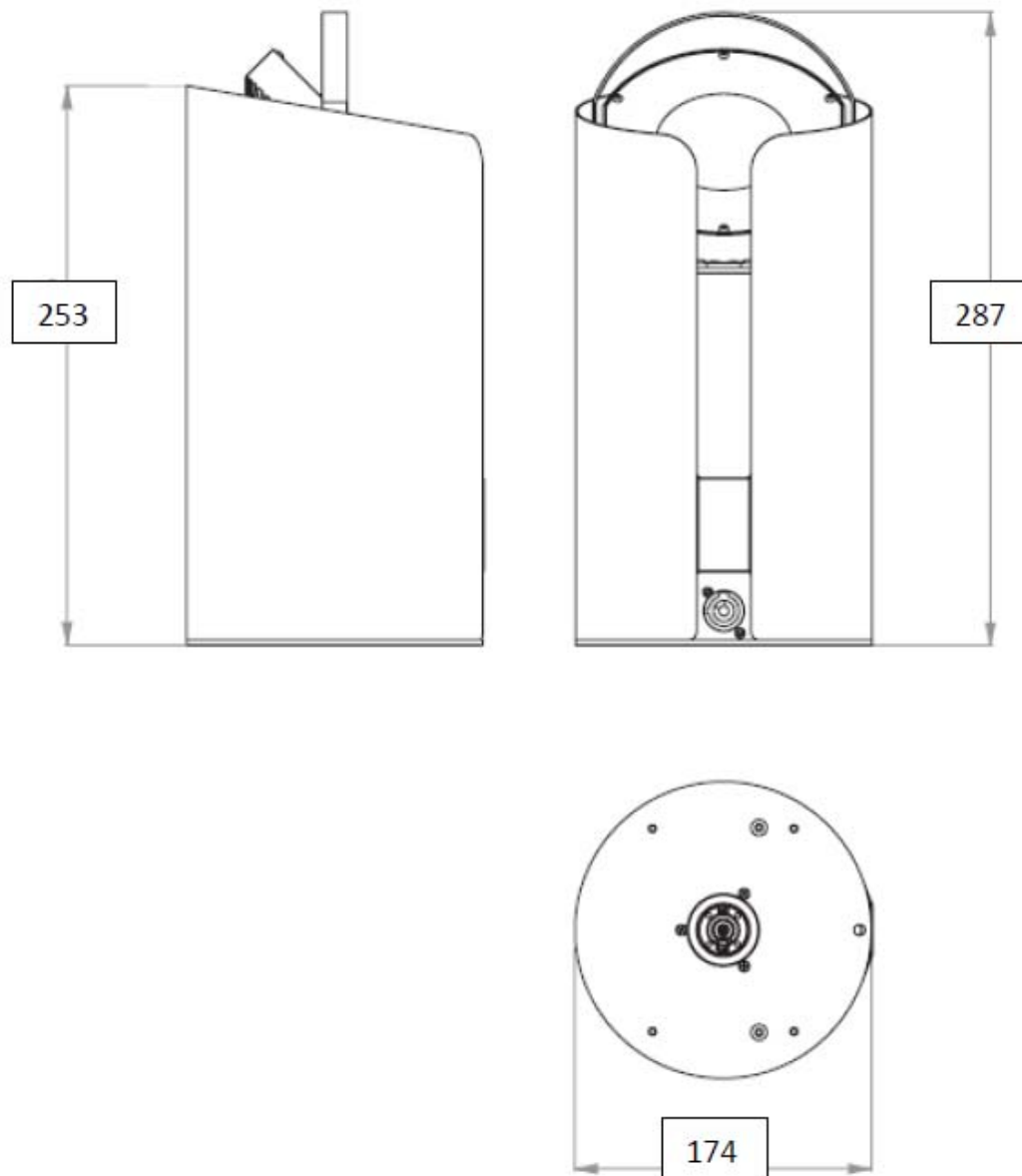
The keypad may be locked to prevent tampering or inadvertent adjustment of the unit.

To Lock: Hold down the **FN** key whilst switching ON the unit to Lock.

To Unlock: First switch OFF the unit. Hold down the **FN** key whilst switching ON the unit to Unlock.

Mechanical

Dimensions



Antenna

The antenna is a high-gain type similar in performance to the Wireless Solutions W-DMX 2dB standard antenna according to testing. This antenna is now fitted to all CORE POINT units.

Locking

The unit may be locked to a nearby object by passing a locking wire or padlock through the locking holes in the top or bottom plates.

A Kensington Lock point is also provided on the bridle assembly holding the head in place.