

Chroma-Q™

Color Block 2 Plus™ System

User Manual



Chroma-Q™
BRILLIANT SOLUTIONS

Version 2.2 October 2013, Software Version 2.2

PN: 603-0502



Warranty Statement

Chroma-Q warrants to the original purchaser, with proof of purchase, that its delivered products shall be free from defects in material and workmanship under normal use for a period of 12 months from date of shipment.

Chroma-Q will repair, or at its option, provide an equivalent item or replace, the defective product during the stated warranty period. This warranty applies only to the repair or replacement of the product and only when the product is properly handled, installed and maintained according to Chroma-Q instructions. This warranty excludes defects resulting from improper handling, storage, installation, acts of God, fire, vandalism or civil disturbances. Purchaser must notify Chroma-Q in writing within 14 days of noticing the defect. This warranty excludes field labour or service charges related to the repair or replacement of the product.

The warranty contained herein shall not extend to any finished goods or spare parts from which any serial number has been removed or which have been damaged or rendered defective (a) as a result of normal wear and tear, willful or accidental damage, negligence, misuse or abuse; (b) due to water or moisture, lightning, windstorm, abnormal voltage, harmonic distortion, dust, dirt, corrosion or other external causes; (c) by operation outside the specifications contained in the user documentation; (d) by the use of spare parts not manufactured or sold by Chroma-Q or by the connection or integration of other equipment or software not approved by Chroma-Q unless the Customer provides acceptable proof to Chroma-Q that the defect or damage was not caused by the above; (e) by modification, repair or service by anyone other than Chroma-Q, who has not applied for and been approved by Chroma-Q to do such modification, repair or service unless the Customer provides acceptable proof to Chroma-Q that the defect or damage was not caused by the above; (f) due to procedures, deviating from procedures specified by Chroma-Q or (g) due to failure to store, install, test, commission, maintain, operate or use finished goods and spare parts in a safe and reasonable manner and in accordance with Chroma-Q's instructions (h) by repair or replacement of engines without factory training.

The warranty contained herein shall not apply to finished goods or spare parts which are sold "as is", as "second-hand", as used", as "demo" or under similar qualifications or to Consumables ("Consumables" is defined as any part(s) of goods or part(s) for use with goods, which part(s) of goods or part(s) for use with goods are consumed during the operation of the goods and which part(s) of goods or part(s) for use with goods require replacement from time to time by a user such as, but not limited to, light bulbs).

The warranty contained herein shall not apply, unless the total purchase price for the defective finished goods or spare parts has been paid by the due date for payment.

The warranty contained herein applies only to the original purchaser and are not assignable or transferable to any subsequent purchaser or end-user.

This warranty is subject to the shipment of the goods, within the warranty period, to the ChromaQ warranty returns department, by the purchaser, at the purchasers expense. If no fault is found, ChromaQ will charge the purchaser for the subsequent return of the goods.

Chroma-Q reserves the right to change the warranty period without prior notice and without incurring obligation and expressly disclaims all warranties not stated in this limited warranty.

Disclaimer

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The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Chroma-Q products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent. Chroma-Q sole warranty is that the product will meet the sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

Chroma-Q reserves the right to change or make alteration to devices and their functionality without notice due to our on going research and development.

The Chroma-Q Color Block 2 Plus has been designed specifically for the lighting industry. Regular maintenance should be performed to ensure that the products perform well in the entertainment environment.

If you experience any difficulties with any Chroma-Q products please contact your selling dealer. If your selling dealer is unable to help please contact support@chroma-q.com. If the selling dealer is unable to satisfy your servicing needs, please contact the following, for full factory service:

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For further information please visit the Chroma-Q website at www.chroma-q.com.

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1. Product overview

The Chroma-Q™ Color Block 2 Plus™

The Chroma-Q™ Color Block 2 Plus™ is a higher output version of the original Color Block 2™ multi-purpose LED fixture that retains the same versatile modular 'building block' design, single colour RGBA optics, high light output and theatrical grade dimming to create an exceptional all-round feature set.

For maximum convenience, it features a Color Block 2 emulation mode, to simulate the lumen output of the original LED engine when used alongside other Color Block 2 fixtures.

With its extensive colour palette and high CRI of 90, the Color Block 2 Plus fixture is a master at creating vibrant bold colours and subtle theatrical hues. Combined with its built-in variable colour temperature capability, even flesh tones look natural, satisfying all but the most critical eye.

The four large, camera-friendly LED cells offer performers less glare and mix beautifully for single colour output, virtually eliminating the frustrating colour separation shadows normally synonymous with LED lighting. The beam optics have a soft asymmetrical quality carefully crafted to give an immediate perfect colour blend for uplighting surfaces, yet retain a soft Fresnel-like edge for direct illumination. The Color Block 2 Plus fixture is bright enough to uplight a 6m / 20 foot set and then some.

In addition, the fixture provides a smooth, theatrical grade dimming experience, whilst retaining the instant strobe-like control of intensity normally associated with LED technology.

Each Color Block 2 fixture features 48 high output LED set into 12 single optic RGBA clusters that are grouped into 4 cells which produce an intense, powerful light and vibrant colours across the spectrum.

The control options incorporate a choice of HSI (Hue, Saturation and Intensity), RGBA (Red, Green, Blue, Amber), RGB (Red, Green, Blue, with *Magic Amber), RGBI (Red, Green, Blue with *Magic Amber and Intensity) control modes, and a dynamic Variable Effects Engine integrated in the software.

The Color Block PSU05B V2 and Color Block PSU30 V2 are DMX controlled power supply units available for the Color Block 2 Plus fixtures.



* Magic Amber is the term used for the unit's ability to bring in Amber when mixing only RGB

Chroma-Q Color Block Power Supply Units

2 DMX controlled power supply models are available to accommodate most applications or operate independently as a standalone system. The Color Block Power Supply units are controlled remotely via ANSI E1.11 USITT DMX 512-A (XLR-5 pin) and feature outputs via XLR-4 pin.

Color Block PSU-05B V2

The Color Block PSU-05B V2 is a power supply unit suitable for up to 5 Color Block DB4 fixtures or 5 Color Block 2 fixtures or 5 Color Block 2 Plus fixtures, or a combination. It can be controlled remotely via ANSI E1.11 USITT DMX 512-A in a variety of modes to accommodate most applications or can operate independently as a standalone system.

The Color Block PSU-05B delivers power and data via 1 XLR4 output. A maximum of five daisy-chained Color Block 2 Plus fixtures can be connected to the PSU-05B. Return lines are not required. The total cable length of each chain must not exceed 60m/200ft. Two in/out RJ45 connectors are available for synchronisation.



Color Block PSU-30 V2

The Color Block PSU30 V2 is a 2U 19" rack mounted power supply suitable for up to 30 Color Block DB4 fixtures or 30 Color Block 2 fixtures or 30 Color Block 2 Plus fixtures, or a combination. It can be controlled remotely via ANSI E1.11 USITT DMX 512-A in a variety of modes to accommodate most applications or can operate independently as a standalone system.

The Color Block PSU-30 delivers power and data via 6 XLR4 outputs. A maximum of five daisy-chained Color Block 2 Plus fixtures can be connected to each XLR4 output. Return lines are not required. The total cable length of each chain must not exceed 60m/200ft. Two in/out RJ45 connectors are available for synchronisation.



2. Operation

2.1 Unpacking the units

The Color Block 2 Plus package includes 1 unit Color Block 2 Plus fixture and a Quick Start Guide. We recommend that you keep the original packaging in case the item needs to be returned.

The Color Block PSU-05B package includes 1 unit PSU-05B, IEC power cord and a Quick Start Guide. The Color Block PSU-30 package includes 1 unit PSU-30 and a Quick Start Guide.

2.2 Cabling

PSU Power Input: PSU05B: IEC Power Cord; PSU30: Trailing Lead

International Colour Code	North American Colour Code	Connections	
Green and Yellow	Green	Earth (E)	Ground (Green)
Blue	White	Neutral (N)	Neutral (Silver)
Brown	Black	Live (L)	Hot (Gold)

Control Data Input and Output: DMX Input control data from an external control console is through an XLR 5-pin cable:

Pin#	Function
1	Ground (Screen)
2	Data Minus
3	Data Plus
4	Spare Data Minus
5	Spare Data Plus

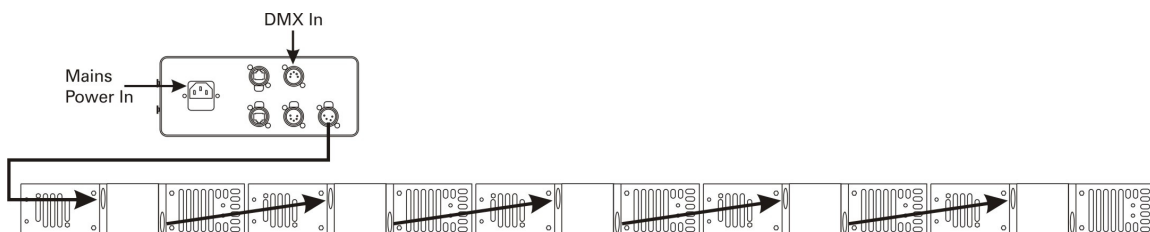
Power & Data: Power and control data outputs from the Color Block power supply to the fixtures is through an XLR 4-pin cable. The drain wire should be connected to the chassis of the XLR.

Pin #	Function	Minimum Cable size
1	Ground (-ve)	2.50mm ² (14 AWG)
2	Control data minus (-)	0.35mm ² (22 AWG)
3	Control data plus (+)	0.35mm ² (22AWG)
4	24V DC (+ve)	2.50mm ² (14 AWG)
Chassis	Cable shield/drain wire	0.25mm ² (24 AWG)

Only genuine Tourflex Datasafe cable is recommended for use with the Color Block 2 Plus system. Damage will occur if power connections short-circuit to data or ground shield connections. When assembling XLR4-pin cables, heat shrink should be used on each individual data pin and the drain wire to prevent short circuits.

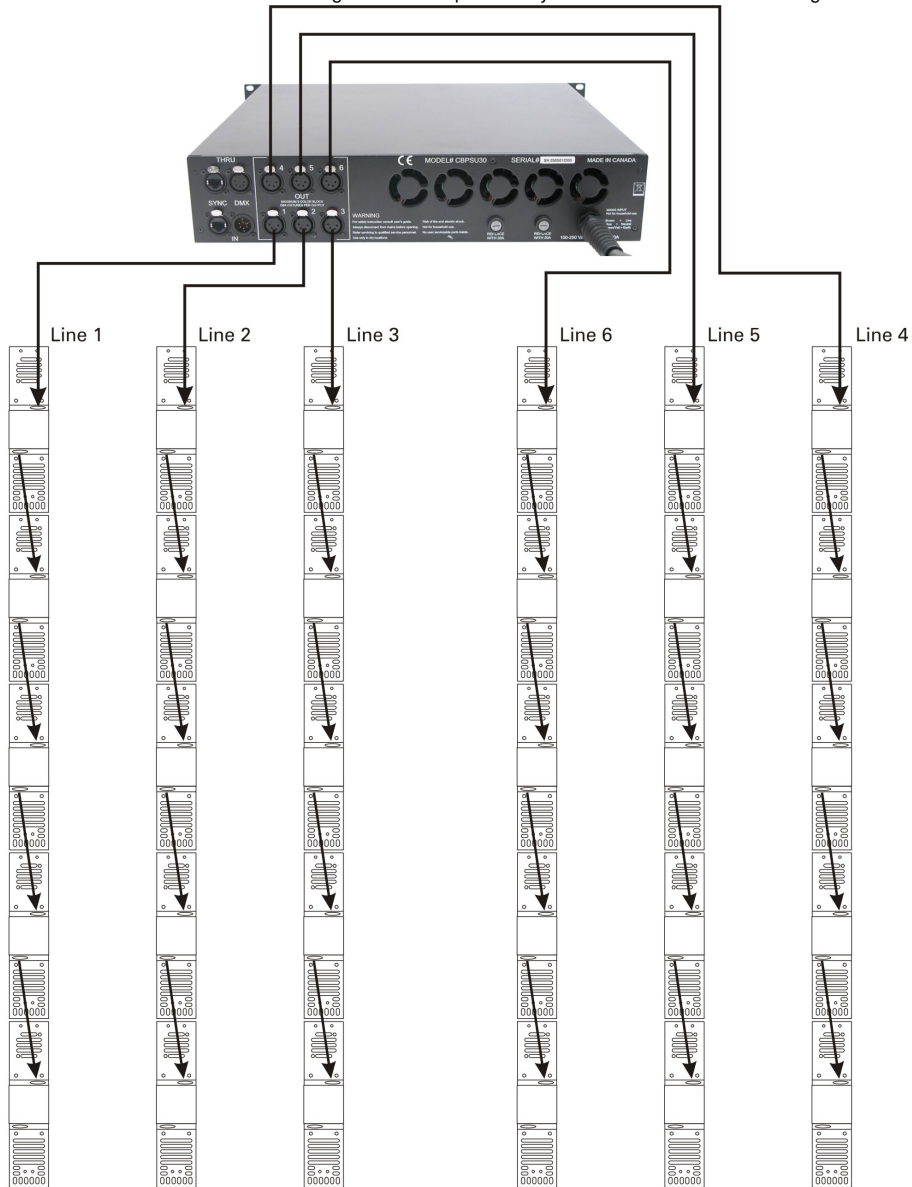
System Diagrams:

Color Block PSU05B - delivers power and data via 1 XLR4 output. A maximum of five daisy-chained Color Block 2 Plus fixtures can be connected to the PSU-05B. Return lines are not required. The total cable length of each chain must not exceed 60m/200ft and a maximum of 20m XLR4 cable length should separate adjacent fixture units to avoid signal deterioration.



Note: Maximum of 5 Color Block 2 fixtures per cable. No return cables required.

Color Block PSU30 - delivers power and data via 6 XLR4 outputs. A maximum of five daisy-chained Color Block 2 Plus fixtures can be connected to each XLR4 output. Return lines are not required. The total cable length of each chain must not exceed 60m/200ft and a maximum of 20m XLR4 cable length should separate adjacent fixture units to avoid signal deterioration.



SYNC - RJ45

The RJ45 connector is used to synchronise the FX running on multiple power supply units (not Ethernet). A straight wired RJ45 patch cable is suitable to connect units (not a crossover cable).

Note: Due to the higher levels of leakage current of the PSU30 it is important that the XLR4 cables used are manufactured only to the specification detailed above. It is also important that the cables are not coupled or uncoupled whilst the PSU is powered and that the PSU is correctly grounded.

Important Notice:

The use of an opto-splitter for DMX signal distribution is highly recommended when several fixture units are not plugged into the same power source.

2.3 Fixings

The Color Block 2 Plus fixture also features an integral connection system to enable up to five units to be locked together as a batten (see below).

The Color Block 2 Plus fixture is supplied with an integral M10 clinch nuts at each end. These can be used to attach the Color Block 2 Plus fixture to a standard hook clamp or the wide range of Color Block accessories listed below.

Note:

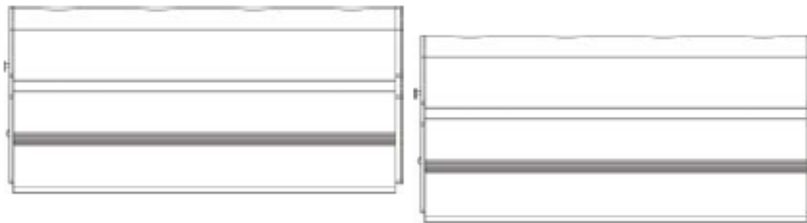
Damage may occur if the bolt is too long (M10x16 maximum). In addition, both sides of the fixture feature a fixing slot designed to accept an M6 bolt head.

It is important to ensure that each fixture is also secured with a safety bond. The end plate of each fixture has a fixing hold to facilitate secondary fixings.

a. Integrated connection system

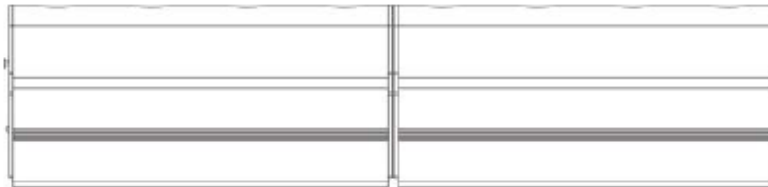
One end of the Color Block 2 Plus fixture features two protruding locating pins and a catch plate, the other end has two keyhole slots and a butterfly latch.

1. To connect two fixtures together, firstly mate the two protruding pins from one fixture into the keyhole slots of the other.

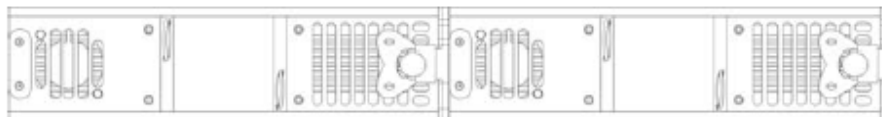


2. Then slide the fixtures together so that they are aligned correctly, taking care to get past the extended catch plate.

Note: This will be stiff on new fixtures and a twisting action may ease assembly.



3. Finally use the butterfly latch to secure the fixtures together tightly (max 5 units together).



Note: It is important to ensure adequate ventilation at the rear of all colour block fixtures. Never place the fixtures directly on the floor pointing upwards when configured as a batten.



The Color Block 2 Plus fixture is supplied with an integral M10 clinch nuts at each end. These can be used to attach the Color Block 2 fixture to a standard hook clamp.

Note: damage may occur if the bolt is too long. (M10x16 maximum)

b. Batten bracket kit for up to five fixtures

The batten bracket set is supplied as a pair of brackets with fibre washers and thumb wheels. The batten bracket set can be used for floor mounting (see photo), direct wall mounting and truss mounting when used in conjunction with hook clamps or half couplers.



c. Yoke kit for single fixture

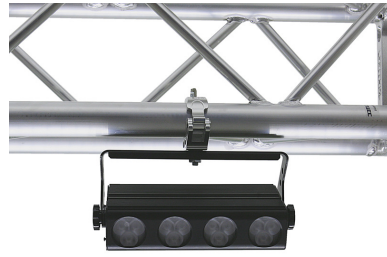
The yoke kit for single fixture is supplied as a yoke bracket with fibre washers and thumb wheels.

The yoke kit can be used for floor mounting (see photo), direct wall mounting and truss mounting when used in conjunction with hook clamps or half couplers.



d. Dual mode yoke kit for single fixture

The dual mode yoke kit for single fixture is supplied with fibre washers and thumb wheels. The dual mode yoke combines the function of the single yoke and the batten bracket.



e. Blinder frame for four fixtures

The blinder frame is supplied as a yoke bracket, side plates, fibre washers, thumb wheels and eight M10 bolts.

The blinder frame is designed to truss mount with the use of a half coupler.

The end plates feature two complete sets of fixture fixing holes. Set one hold the fixtures closely together ensuring equal centres for all sixteen cells. Sets two are adjustable and allow the Color Block 2 Plus fixtures to be splayed out at varying angles.



f. Hinge kit

The hinge kit is supplied as one complete hinge with fibre washers and M10 bolts.

The hinge kit fits between two Color Block 2 Plus fixtures and offers an angle adjustment of 180 deg. If used in multiples, unique shapes can be achieved, such as hexagons, octagons etc.



g. Wall bracket for single fixture

The Wall bracket for single fixture is a discreet fixing suitable for fixing a single Color Block 2 to a wall or set piece. Keyhole slots are provided for vertical or horizontal fixing.



2.4 Power Supply Mounting

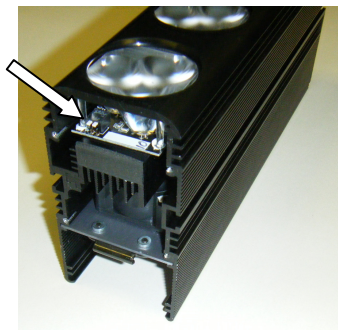
Unique Magic Box interlocking enclosure of the PSU-05B facilitates easy rack mounting when used in pairs and easy truss mounting via captive nut insert. Rack mounting brackets are available in single unit and dual unit versions, enabling you to customise your equipment rack or installation by mixing and matching different Magic Box interface units. Ensure adequate ventilation around the holes in the enclosure. Failure to allow adequate ventilation may result in premature failure of the unit.

The Color Block PSU-30 must be installed in a 2U rack mounted enclosure and be supported front and rear. Ensure adequate ventilation around the front and rear of the enclosure. Failure to allow adequate ventilation may result in premature failure of the unit.

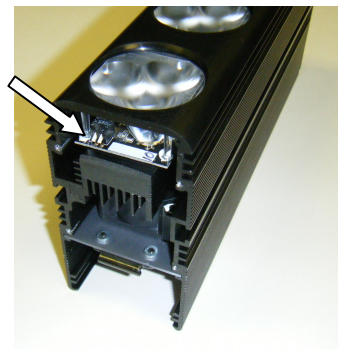
2.5 Emulation Mode

The Color Block 2 Plus is fitted with an internal switch that adjusts the lumen output of the unit to simulate the original LED engine of the Color Block 2 fixtures.

1. Remove the end plate with the rivets.
2. The toggle switch on the edge of the PCB is on the horizontal position for normal Color Block 2 Plus operation.



3. Press down the toggle switch to simulate the lumens output of the Color Block 2.



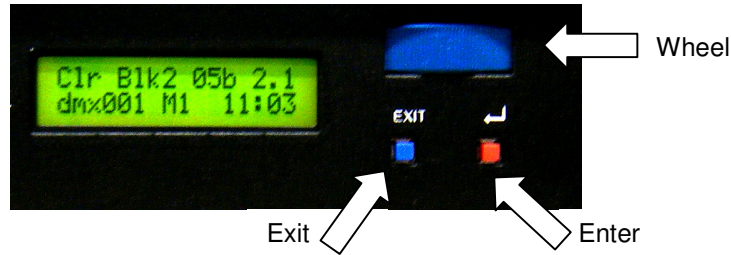
4. Replace the end plate.

2.6 Control

The Chroma-Q Color Block 2 Plus is controlled via two models of addressable ANSI E1.11 USITT DMX512-A power supply units, the 5 way Color Block PSU05B and the 30 way Color Block PSU30.

The Color Block PSU05B and PSU30 menu items are accessed via the LCD display and the following controls:

Right hand RED button [Return Arrow]	Enter (hold for 2 seconds to save)
Left hand BLUE button [Exit]	Exit without saving
Wheel	Adjusts values or scrolls through menu items



The LCD screens shown above are currently at the Home position and display: product name and model, software version, current DMX address, current control mode and time.

If left unadjusted at a main menu position for 5 second the LCD screen will revert to the Home position.

Control Options:

3 channel HSI	(Hue, Saturation and Intensity) gives 2 colour channels for hue and saturation and a separate intensity channel. A separate definable intensity channel is particularly useful when creating intensity chases or when the grand master is used. The hue channel has 255 different colours available and the saturation channel specifies the saturation level of that colour. The saturation channel is fully saturated at full. White is achieved with the intensity channel to full and the saturation channel at zero.
3 channel RGB	(Red, Green, Blue with *Magic Amber) is the more traditional way of controlling colour changing LED fixtures. Each of the three control channels directly affects the intensity of the corresponding LED. Colour is mixed by adjusting the levels of the three primary colours. White is achieved with all channels at full including *Magic Amber.
3 channel RGB + 1 intensity channel	(Red, Green, Blue with *Magic Amber and Intensity) gives 3 control channels directly affecting the intensity of the corresponding LED – Red, Green, Blue with *Magic Amber, and 1 channel affecting the intensity of all RGB(A) channels.
4 channel RGBA	(Red, Green, Blue and Amber) gives 4 control channels directly affecting the intensity of the corresponding LED – Red, Green, Blue and Amber. Color is mixed by adjusting the levels of each of the four colors. White is achieved with all channels at full.

Grouping options:

Grouping by individual LED engine “single” cell, grouping by fixture “block” and “all”

A Color Block 2 Plus fixture consists of 4 cells (LED Engines). Each single cell consists of 3 red, 3 green, 3 blue and 3 amber LEDs.

- “Single” grouping allows individual control of each color in every single cell.
- In “Block” grouping, the 4 cells in each Color Block 2 Plus fixture are grouped and controlled as 1 block.
- In “All” grouping, all fixtures connected to a power supply can be controlled as 1 group.

Internal FX engine:

Modes 1, 4, and 7 incorporate a comprehensive internal FX engine with seven variable parameters to create an unlimited amount of unique lighting effects.

* Magic Amber is the term used for the unit's ability to bring in Amber when mixing only RGB

Control Menu

1. Use the wheel to scroll through the control menu options.
2. Press Enter to select a menu option.
3. Press Enter for 2 seconds to save and the screen goes back to Home.
4. Or press Exit to exit without saving.

Main Menu / DMX Address

To set the DMX start address of the PSU-05B/PSU-30,

1. Press Enter
2. Scroll the wheel to adjust DMX start address
3. Press Enter for 2 seconds to save

The screen goes back to Home with the new start address.



Control Mode

The PSU05B/PSU30 can be set to operate in 16 DMX controlled modes for the Color Block 2 Plus system (CB2 - Go to "System" and select "CB2").

3 grouping options are available (single-grouped, block-grouped, all-grouped) with 5 control options: FxHSI, HSI, RGB (with *Magic Amber), RGBA, RGBI (with *Magic Amber), pre-programmed looks and standalone effects.

Refer to the list below for details.

Mode	Group	Ch	PSU05B System: CB2	Ch	PSU30 System: CB2
1	Variable	67	7FX + 20 x HSI	367	7FX + 120 x HSI
2	Single	60	20 x HSI	360	120 x HSI
3	Single	60	20 x RGB (with *Magic Amber)	360	120 x RGB (with *Magic Amber)
4	Block	21	6FX + 5 x HSI	96	6FX + 30 x HSI
5	Block	15	5 x HSI	90	30 x HSI
6	Block	15	5 x RGB (with *Magic Amber)	90	30 x RGB (with *Magic Amber)
7	All	9	6FX + HSI	9	6FX + HSI
8	All	3	1 x HSI	3	HSI
9	All	3	1 x RGB (with *Magic Amber)	3	RGB (with *Magic Amber)
10	Single	80	20 x RGBA	480	120 x RGBA
11	Single	80	20 x RGBI (with *Magic Amber)	480	120 x RGBI (with *Magic Amber)
12	Block	20	5 x RGBA	120	30 x RGBA
13	Block	20	5 x RGBI (with *Magic Amber)	120	30 x RGBI (with *Magic Amber)
14	All	4	RGBA	4	RGBA
15	All	4	RGBI (with *Magic Amber)	4	RGBI (with *Magic Amber)
16	Any	1	Look Select	1	Look Select



When DMX is Lost

If DMX is not detected various output options can be selected:

- Off Snaps to Off
- Hold Holds the last valid DMX state
- Trig Defaults to Time Trigger operation
- Look 1-31 Snaps to the selected Look

To select the output option,

1. Scroll the wheel to select "When DMX is Lost"
2. Press Enter

3. Scroll the wheel and select an output
4. Press Enter for 2 seconds to save



Look Store

The PSU05B/PSU30 has 31 internal preset FX Looks for standalone operation, 1-23 are pre-programmed.

To replay a Look in standalone operation,

1. Scroll the wheel to select "Look Store"
2. Press Enter, then scroll and select the desired Look
3. Press Enter for 2 seconds to save

To replay/playback a Look with a DMX console,

1. In the Control Mode menu, scroll the wheel and select "Look sel"
2. Press Enter for 2 seconds to save.
3. Use the DMX console with the assigned channel to replay/playback the various looks stored. (1-31 looks in 1 single channel)

Note: DMX has priority over internal Looks.

Looks can be recorded to the internal flash memory by users and will be preserved on power down. However, looks will be returned to the default setting if Reset is performed. There are two ways to record a look:

Simple, with DMX console.

1. Set the PSU05B/PSU30 to the desired Control Mode.
2. Use a DMX console to adjust channel levels and create the desired look or effect.
3. Scroll the wheel and select "Look Store"
4. Press Enter, then scroll to desired Look number
5. Press Enter for 2 seconds to save the Look.

Advanced, standalone. (DMX is unplugged)

1. Scroll the wheel and select "Look Store"
2. Press Enter, scroll the wheel and select the desired Look
3. Press Enter to access the memory data.

The memory data is presented as two numbers separated by a letter "c". The number to the left of the c is the channel number and to the right is the channel level. Scrolling to the far end of the wheel will show the Mode at which the selected Look was programmed.

To edit the Mode of a selected Look,

1. Scroll the wheel and select "Look Store"
2. Press Enter, scroll the wheel and select the desired Look
3. Press Enter to access the memory data
4. Scroll the wheel up to the far end until the Mode number is shown
5. Press Enter
6. Scroll the wheel to adjust the Mode number
7. Press Enter to toggle back to the channel numbers

To edit the channel numbers and levels of a selected Look,

1. Scroll the wheel and select "Look Store"
2. Press Enter, scroll the wheel and select the desired Look
3. Press Enter to access the memory data
4. Scroll the wheel and select the channel number.

To edit the channel level of a channel number,

5. Press Enter and scroll the wheel to adjust the level (shown as 0-255)
6. Press Enter to toggle back to the channel number
7. Press Enter for 2 seconds to save the modified Look

8. Repeat steps 4 to 7 for each channel.



Time Triggers

The PSU05B/PSU30 has real time triggering of the internal Looks.

1. Scroll the wheel and select "Time Trigger"
2. Press Enter
3. Press Enter to toggle between Day, Hour (24), Minutes and Look to be triggered
4. Scroll the wheel to adjust the setting
5. Press Enter for 2 seconds to save.

By default Time Triggers occurs on all 7 days unless specified. The triggers will only be activated when the feature "When DMX is Lost" is set to Trig.



Set Day and Time

To set the Day and Time,

1. Scroll the wheel and select "Set Day and Time"
2. Press Enter to toggle between Day, Hour (24) and Minutes,
3. Scroll the wheel to adjust the settings
4. Press Enter for 2 seconds to save.



Display Backlight (Displ. Backlight)

The LED display can be set to go off after 5 seconds of no activity.

To set the Display backlight,

1. Scroll the wheel and select "Displ. Backlight"
2. Press Enter
3. Scroll wheel to On (permanently) or Off (after 5 seconds)
4. Press Enter for 2 seconds to save.



Reset to Default

To reset all menu items to the factory default,

1. Scroll the wheel to select "Reset to Default"
2. Press Enter for 2 seconds until the screen shows "resetting"

The control menu items are reset to factory default settings:

DMX address	001
Control Mode	1 (67 or 367 channels FxHSI)
When DMX is Lost	Hold
Look Store	Default
Display	On
Frequency	360
System	CB2



System

The PSU05B/PSU30 can be set to operate for the Color Block DB4 system (CB1) and the Color Block 2 system (CB2).

1. Scroll the wheel and select "System"
2. Press Enter
3. Scroll the wheel and select CB1 or CB2
4. Press Enter for 2 seconds to save.



Frequency

The PSU05B/PSU30 has four frequency settings available - 360, 600, 1200, 2400. This allows for the LED scan rate to be synchronised with the video camera and avoid a flickering effect.

To set the frequency,

1. Scroll the wheel and select "Frequency"
2. Press Enter

3. Scroll the wheel and select the frequency
4. Press Enter for 2 seconds to save.



Sync Mode

In normal operation internally generated FX should stay synchronised between the PSU05B's/PSU30's for approx 30 minutes. If better synchronisation is required a timing signal can be run via a RJ45 patch (not crossover) cable between PSU's. In order for this to work correctly one PSU05B or PSU30 must be designated as the Master and all the others must be set to Slave.

To activate sync mode,

1. Scroll the wheel and select "Sync Mode"
2. Press Enter
3. Scroll the wheel and select "Master" or "Slave"
4. Press Enter for 2 seconds to save.

2.7 DMX Protocol

PSU05B DMX Personality Mode 1-3

PSU05B (v2.2)	In mode 1 grouping is variable & in modes 2 -3 each single cell is a group		
	Mode 1 (67ch) 7Fx + 20 x HSI	Mode 2 (60ch) 20 x HSI	Mode 3 (60ch) 20 x RGB (with *Magic Amber)
Channel 1	Grouping 0-100 Variable grouping range between 1-20 cells with FX running within the group. 102-206 variable grouping range between 1-20 cells with FX running between the groups. 209-255 Variable grouping range for every 2 nd to every 20 th cells in a group.	Hue for group 1	Red for group 1
Channel 2	Colour Speed 0-255 Variable speed of colour scrolling. From static at 0 to maximum at 255.	Saturation for group 1	Green for group 1
Channel 3	Colour Fan 0-255 Variable fan of colour between / within groups. All units are the same colour at 0.	Intensity for group 1	Blue for group 1
Channel 4	Colour Range 0 Full spectrum 1-255 Variable limit of spectrum for colour scrolling. Single colour at 1, full spectrum at 255.	Hue for group 2	Red for group 2
Channel 5	Colour Step 0-255 Variable control of smoothness of colour scrolling. Smoothest is at 0. Most coarse is at 250. Rate will vary with scrolling speed. 255 will override effects and switch to RGB.	Saturation for group 2	Green for group 2
Channel 6	Intensity Effects 0 Static 1-63 Fade on, fade off. Variable range, 63 the fastest 64-127 Fade on, snap off. Variable range, 127 the fastest 128-191 Snap on, fade off. Variable range, 191 the fastest. 192-255 Snap on, snap off (strobe). Variable range, 255 the fastest.	Intensity for group 2	Blue for group 2
Channel 7	Intensity Fan 0-255 Variable fan of intensity effect between / within groups. All units at the same intensity at 0. Alternating units on and off at 255.	Hue for group 3	Red for group 3
Channel 8	Hue for group 1	Saturation for group 3	Green for group 3
Channel 9	Saturation for group 1	Intensity for group 3	Blue for group 3
Channel 10	Intensity for group 1	Hue for group 4	Red for group 4
Channel 11	Hue for group 2	Saturation for group 4	Green for group 4
Channel 12	Saturation for group 2	Intensity for group 4	Blue for group 4
Channel 13	Intensity for group 2	Hue for group 5	Red for group 5
	...and so on up to group 20		
Total DMX Channels	67 DMX channels	60 DMX channels	60 DMX channels

PSU05B DMX Personality Mode 4-6

	In modes 4-6, the 4 cells of a fixture is a group (Block)		
PSU05B (v2.2)	Mode 4 (21ch) 6FX + 5 x HSI	Mode 5 (15ch) 5 x HSI	Mode 6 (15ch) 5 x RGB (with *Magic Amber)
Channel 1	Colour Speed 0-255 Variable speed of colour scrolling. From static at 0 to maximum at 255.	Hue for group 1	Red for group 1
Channel 2	Colour Fan 0-255 Variable fan of colour between groups. All units are the same colour at 0.	Saturation for group 1	Green for group 1
Channel 3	Colour Range 0 Full spectrum 1-255 Variable limit of spectrum for colour scrolling. Single colour at 1, full spectrum at 255.	Intensity for group 1	Blue for group 1
Channel 4	Colour Step 0-255 Variable control of smoothness of colour scrolling. Smoothest is at 0. Most coarse is at 250. Rate will vary with scrolling speed. 255 will override effects and switch to RGB.	Hue for group 2	Red for group 2
Channel 5	Intensity Effects 0 Static 1-63 Fade on, fade off. Variable range, 63 the fastest 64-127 Fade on, snap off. Variable range, 127 the fastest 128-191 Snap on, fade off. Variable range, 191 the fastest. 192-255 Snap on, snap off (Strobe). Variable range, 255 the fastest.	Saturation for group 2	Green for group 2
Channel 6	Intensity Fan 0-255 Variable fan of intensity effect between groups. All units at the same intensity at 0. Alternating units on and off at 255.	Intensity for group 2	Blue for group 2
Channel 7	Hue for group 1	Hue for group 3	Red for group 3
Channel 8	Saturation for group 1	Saturation for group 3	Green for group 3
Channel 9	Intensity for group 1	Intensity for group 3	Blue for group 3
Channel 10	Hue for group 2	Hue for group 4	Red for group 4
Channel 11	Saturation for group 2	Saturation for group 4	Green for group 4
Channel 12	Intensity for group 2	Intensity for group 4	Blue for group 4
Channel 13	Hue for group 3	Hue for group 5	Red for group 5
	...and so on up to group 5		
Total DMX Channels	21 DMX channels	15 DMX channels	15 DMX channels

PSU05B DMX Personality Mode 7-9

	In modes 7-9 all fixtures in the output are in 1 group (All)		
PSU05B (v2.2)	Mode 7 (9ch) 6FX + HSI	Mode 8 (3ch) HSI	Mode 9 (3ch) RGB (with *Magic Amber)
Channel 1	Colour Speed 0-255 Variable speed of colour scrolling. From static at 0 to maximum at 255.	Hue for group 1	Red for group 1
Channel 2	Colour Fan 0-255 Variable fan of colour within group. All units are the same colour at 0.	Saturation for group 1	Green for group 1
Channel 3	Colour Range 0 Full spectrum 1-255 Variable limit of spectrum for colour scrolling. Single colour at 1, full spectrum at 255.	Intensity for group 1	Blue for group 1
Channel 4	Colour Step 0-255 Variable control of smoothness of colour scrolling. Smoothest is at 0. Most coarse is at 250. Rate will vary with scrolling speed. 255 will override effects and switch to RGB.		
Channel 5	Intensity Effects 0 Static 1-63 Fade on, fade off . Variable range, 63 the fastest 64-127 Fade on, snap off. Variable range, 127 the fastest 128-191 Snap on, fade off. Variable range, 191 the fastest. 192-255 Snap on, snap off (Strobe). Variable range, 255 the fastest.		
Channel 6	Intensity Fan 0-255 Variable fan of intensity effect within group. All units at the same intensity at 0. Alternating units on and off at 255.		
Channel 7	Hue for group 1		
Channel 8	Saturation for group 1		
Channel 9	Intensity for group 1		
Total DMX Channels	9 DMX channels	3 DMX channels	3 DMX channels

PSU05B DMX Personality Mode 10-11

	In modes 10-11 each cell is a group	
PSU05B (v2.2)	Mode 10 (80ch) RGBA	Mode 11 (80ch) RGBI (with *Magic Amber)
Channel 1	Red for group 1	Red for group 1
Channel 2	Green for group 1	Green for group 1
Channel 3	Blue for group 1	Blue for group 1
Channel 4	Amber for group 1	Intensity for group 1
Channel 5	Red for group 2	Red for group 2
Channel 6	Green for group 2	Green for group 2
Channel 7	Blue for group 2	Blue for group 2
Channel 8	Amber for group 2	Intensity for group 2
Channel 9	Red for group 3	Red for group 3
Channel 10	Green for group 3	Green for group 3
Channel 11	Blue for group 3	Blue for group 3
Channel 12	Amber for group 3	Intensity for group 3
Channel 13	Red for group 4	Red for group 4
	...and so on up to group 20	
	80 DMX channels	80 DMX channels

PSU05B DMX Personality Mode 12-13

	In modes 12-13, the 4 cells of a fixture is a group (Block)	
PSU05B (v2.2)	Mode 12 (20ch) RGBA	Mode 13 (20ch) RGBI (with *Magic Amber)
Channel 1	Red for group 1	Red for group 1
Channel 2	Green for group 1	Green for group 1
Channel 3	Blue for group 1	Blue for group 1
Channel 4	Amber for group 1	Intensity for group 1
Channel 5	Red for group 2	Red for group 2
Channel 6	Green for group 2	Green for group 2
Channel 7	Blue for group 2	Blue for group 2
Channel 8	Amber for group 2	Intensity for group 2
Channel 9	Red for group 3	Red for group 3
Channel 10	Green for group 3	Green for group 3
Channel 11	Blue for group 3	Blue for group 3
Channel 12	Amber for group 3	Intensity for group 3
Channel 13	Red for group 4	Red for group 4
	...and so on up to group 5	
	20 DMX channels	20 DMX channels

PSU05B DMX Personality Mode 14-15

	In modes 14-15 all fixtures in the output are a group (All)	
PSU05B (v2.2)	Mode 14 (4ch) RGBA	Mode 15 (4ch) RGBI (with *Magic Amber)
Channel 1	Red for group 1	Red for group 1
Channel 2	Green for group 1	Green for group 1
Channel 3	Blue for group 1	Blue for group 1
Channel 4	Amber for group 1	Intensity for group 1
	4 DMX channels	4 DMX channels

	In mode 16 grouping is variable		
PSU05B (v2.2)	Mode 16 (1ch) Look Store		
Channel 1	Channel levels and the corresponding Look numbers:		
	Channel Level (%)	Look	Description
	0	OFF	
	1-2	1	Full Colour Scroll (5 sec)
	3-5	2	Full Colour Scroll (10 sec)
	6-9	3	Full Colour Scroll (30 sec)
	10-11	4	Warm Colour Scroll (5 sec)
	12-15	5	Warm Colour Scroll (10 sec)
	16-19	6	Warm Colour Scroll (30 sec)
	20-22	7	Cold Colour Scroll (5 sec)
	23-25	8	Cold Colour Scroll (10 sec)
	26-27	9	Color Colour Scroll (30 sec)
	29-32	10	Red Full
	33-35	11	Pink Full
	36-38	12	Orange Full
	39-42	13	Light Orange Full
	43-45	14	Yellow Full
	46-48	15	Light Yellow Full
	49-51	16	Green Full
	52-54	17	Light Green Full
	56-58	18	Cyan Full
	59-61	19	Light Cyan Full
	62-64	20	Blue Full
	65-68	21	Light Blue Full
	69-71	22	3200 White
	72-74	23	5600 White
	75-78	24	Empty
	79-81	25	Empty
	83-85	26	Empty
	86-88	27	Empty
	89-91	28	Empty
	92-94	29	Empty
	95-97	30	Empty
	98-100	31	Empty

PSU30 DMX Personality Mode 1-3

	In mode 1 grouping is variable & in modes 2 -3 each single cell is a group		
PSU30 (v2.2)	Mode 1 (367ch) 7FX + 120 x HSI	Mode 2 (360ch) 120 x HSI	Mode 3 (360ch) 120 x RGB (with *Magic Amber)
Channel 1	Grouping 0-100 Variable grouping range between 1-120 cells with FX running within the group. 102-206 variable grouping range between 1-120 cells with FX running between the groups. 209-255 Variable grouping range for every 2 nd to every 120 th cells in a group.	Hue for group 1	Red for group 1
Channel 2	Colour Speed 0-255 Variable speed of colour scrolling. From static at 0 to maximum at 255.	Saturation for group 1	Green for group 1
Channel 3	Colour Fan 0-255 Variable fan of colour between / within groups. All units are the same colour at 0.	Intensity for group 1	Blue for group 1
Channel 4	Colour Range 0 Full spectrum 1-255 Variable limit of spectrum for colour scrolling. Single colour at 1, full spectrum at 255.	Hue for group 2	Red for group 2
Channel 5	Colour Step 0-255 Variable control of smoothness of colour scrolling. Smoothest is at 0. Most coarse is at 250. Rate will vary with scrolling speed. 255 will override effects and switch to RGB.	Saturation for group 2	Green for group 2
Channel 6	Intensity Effects 0 Static 1-63 Fade on, fade off. Variable range, 63 the fastest 64-127 Fade on, snap off. Variable range, 127 the fastest 128-191 Snap on, fade off. Variable range, 191 the fastest. 192-255 Snap on, snap off (strobe). Variable range, 255 the fastest.	Intensity for group 2	Blue for group 2
Channel 7	Intensity Fan 0-255 Variable fan of intensity effect between / within groups. All units at the same intensity at 0. Alternating units on and off at 255.	Hue for group 3	Red for group 3
Channel 8	Hue for group 1	Saturation for group 3	Green for group 3
Channel 9	Saturation for group 1	Intensity for group 3	Blue for group 3
Channel 10	Intensity for group 1	Hue for group 4	Red for group 4
Channel 11	Hue for group 2	Saturation for group 4	Green for group 4
Channel 12	Saturation for group 2	Intensity for group 4	Blue for group 4
Channel 13	Intensity for group 2	Hue for group 5	Red for group 5
	...and so on up to group 120		
Total DMX channels	367 DMX channels	360 DMX channels	360 DMX channels

PSU30 DMX Personality Mode 4-6

In modes 4-6, the 4 cells of each fixture is a group (Block)			
PSU30 (v2.2)	Mode 4 (96ch) 6FX + 30 x HSI	Mode 5 (90ch) 30 x HSI	Mode 6 (90ch) 30 x RGB (with *Magic Amber)
Channel 1	Colour Speed 0-255 Variable speed of colour scrolling. From static at 0 to maximum at 255.	Hue for group 1	Red for group 1
Channel 2	Colour Fan 0-255 Variable fan of colour between groups. All units are the same colour at 0.	Saturation for group 1	Green for group 1
Channel 3	Colour Range 0 Full spectrum 1-255 Variable limit of spectrum for colour scrolling. Single colour at 1, full spectrum at 255.	Intensity for group 1	Blue for group 1
Channel 4	Colour Step 0-255 Variable control of smoothness of colour scrolling. Smoothest is at 0. Most coarse is at 250. Rate will vary with scrolling speed. 255 will override effects and switch to RGB.	Hue for group 2	Red for group 2
Channel 5	Intensity Effects 0 Static 1-63 Fade on, fade off . Variable range, 63 the fastest 64-127 Fade on, snap off. Variable range, 127 the fastest 128-191 Snap on, fade off. Variable range, 191 the fastest. 192-255 Snap on, snap off (Strobe). Variable range, 255 the fastest.	Saturation for group 2	Green for group 2
Channel 6	Intensity Fan 0-255 Variable fan of intensity effect between groups. All units at the same intensity at 0. Alternating units on and off at 255.	Intensity for group 2	Blue for group 2
Channel 7	Hue for group 1	Hue for group 3	Red for group 3
Channel 8	Saturation for group 1	Saturation for group 3	Green for group 3
Channel 9	Intensity for group 1	Intensity for group 3	Blue for group 3
Channel 10	Hue for group 2	Hue for group 4	Red for group 4
Channel 11	Saturation for group 2	Saturation for group 4	Green for group 4
Channel 12	Intensity for group 2	Intensity for group 4	Blue for group 4
Channel 13	Hue for group 3	Hue for group 5	Red for group 5
...and so on up to group 30			
Total DMX Channels	96 DMX channels	90 DMX channels	90 DMX channels

PSU-30 DMX Personality Mode 7-9

In modes 7-9 all fixtures in all the outputs are a group (All)			
PSU30 (v2.2)	Mode 7 (9ch) 6FX + HSI	Mode 8 (3ch) HSI	Mode 9 (3ch) RGB (with *Magic Amber)
Channel 1	Colour Speed 0-255 Variable speed of colour scrolling. From static at 0 to maximum at 255.	Hue for group 1	Red for group 1
Channel 2	Colour Fan 0-255 Variable fan of colour within group. All units are the same colour at 0.	Saturation for group 1	Green for group 1
Channel 3	Colour Range 0 Full spectrum 1-255 Variable limit of spectrum for colour scrolling. Single colour at 1, full spectrum at 255.	Intensity for group 1	Blue for group 1
Channel 4	Colour Step 0-255 Variable control of smoothness of colour scrolling. Smoothest is at 0. Most coarse is at 250. Rate will vary with scrolling speed. 255 will override effects and switch to RGB.		
Channel 5	Intensity Effects 0 Static 1-63 Fade on, fade off . Variable range, 63 the fastest 64-127 Fade on, snap off. Variable range, 127 the fastest 128-191 Snap on, fade off. Variable range, 191 the fastest. 192-255 Snap on, snap off (Strobe). Variable range, 255 the fastest.		
Channel 6	Intensity Fan 0-255 Variable fan of intensity effect within group. All units at the same intensity at 0. Alternating units on and off at 255.		
Channel 7	Hue for group 1		
Channel 8	Saturation for group 1		
Channel 9	Intensity for group 1		
Total DMX Channels	9 DMX channels	3 DMX channels	3 DMX channels

PSU30 DMX Personality Mode 10-11

	In modes 10-11 each cell is a group	
PSU30 (v2.2)	Mode 10 (480ch) RGBA	Mode 11 (480ch) RGBI (with *Magic Amber)
Channel 1	Red for group 1	Red for group 1
Channel 2	Green for group 1	Green for group 1
Channel 3	Blue for group 1	Blue for group 1
Channel 4	Amber for group 1	Intensity for group 1
Channel 5	Red for group 2	Red for group 2
Channel 6	Green for group 2	Green for group 2
Channel 7	Blue for group 2	Blue for group 2
Channel 8	Amber for group 2	Intensity for group 2
Channel 9	Red for group 3	Red for group 3
Channel 10	Green for group 3	Green for group 3
Channel 11	Blue for group 3	Blue for group 3
Channel 12	Amber for group 3	Intensity for group 3
Channel 13	Red for group 4	Red for group 4
	...and so on up to group 120	
	480 DMX channels	480 DMX channels

PSU30 DMX Personality Mode 12-13

	In modes 12-13, the 4 cells in a fixture is a group (Block)	
PSU30 (v2.2)	Mode 12 (120ch) RGBA	Mode 13 (120ch) RGBI (with *Magic Amber)
Channel 1	Red for group 1	Red for group 1
Channel 2	Green for group 1	Green for group 1
Channel 3	Blue for group 1	Blue for group 1
Channel 4	Amber for group 1	Intensity for group 1
Channel 5	Red for group 2	Red for group 2
Channel 6	Green for group 2	Green for group 2
Channel 7	Blue for group 2	Blue for group 2
Channel 8	Amber for group 2	Intensity for group 2
Channel 9	Red for group 3	Red for group 3
Channel 10	Green for group 3	Green for group 3
Channel 11	Blue for group 3	Blue for group 3
Channel 12	Amber for group 3	Intensity for group 3
Channel 13	Red for group 4	Red for group 4
	...and so on up to group 30	
	120 DMX channels	120 DMX channels

PSU30 DMX Personality Mode 14-15

	In modes 14-15 all fixtures in all the outputs are a group (All)	
PSU30 (v2.2)	Mode 14 (4ch) RGBA	Mode 13 (4ch) RGBI (with *Magic Amber)
Channel 1	Red for group 1	Red for group 1
Channel 2	Green for group 1	Green for group 1
Channel 3	Blue for group 1	Blue for group 1
Channel 4	Amber for group 1	Intensity for group 1
	4 DMX channels	4 DMX channels

	In mode 16 grouping is variable		
PSU30 (v2.2)	Mode 16 (1ch) Look Store		
Channel 1	Channel levels and the corresponding Look numbers:		
	Channel Level (%)	Look	Description
	0	OFF	
	1-2	1	Full Colour Scroll (5 sec)
	3-5	2	Full Colour Scroll (10 sec)
	6-9	3	Full Colour Scroll (30 sec)
	10-11	4	Warm Colour Scroll (5 sec)
	12-15	5	Warm Colour Scroll (10 sec)
	16-19	6	Warm Colour Scroll (30 sec)
	20-22	7	Cold Colour Scroll (5 sec)
	23-25	8	Cold Colour Scroll (10 sec)
	26-27	9	Color Colour Scroll (30 sec)
	29-32	10	Red Full
	33-35	11	Pink Full
	36-38	12	Orange Full
	39-42	13	Light Orange Full
	43-45	14	Yellow Full
	46-48	15	Light Yellow Full
	49-51	16	Green Full
	52-54	17	Light Green Full
	56-58	18	Cyan Full
	59-61	19	Light Cyan Full
	62-64	20	Blue Full
	65-68	21	Light Blue Full
	69-71	22	3200 White
	72-74	23	5600 White
	75-78	24	Empty
	79-81	25	Empty
	83-85	26	Empty
	86-88	27	Empty
	89-91	28	Empty
	92-94	29	Empty
	95-97	30	Empty
	98-100	31	Empty

3. Troubleshooting

Troubleshooting is a process of elimination. First, rule out the other field factors (i.e. bad connections, faulty cables and power supplies). For technical support and/or parts, please contact your selling dealer or the offices listed in this manual.

Symptom	Possible Cause	Solution
Fixture does not respond to DMX control.	Set to wrong or different DMX address. Bad cable connecting DMX control and fixture. Bad in/through connection between adjacent fixtures.	Check DMX address and Mode settings. Check/replace DMX cable.
Noise from fixture unit.	Fan malfunction.	Check fans.
Low LED output.	Internal temperature is over the limit. Fan is not working.	Check "Fan Control" mode. Check the fans and airflow - to and from the internal fan. Check area ventilation.

4. Specification

4.1 Technical specifications

Color Block 2 Plus

Product Code	CHCB4M2P
Net Dimensions (Without Fixings - Width x Height x Depth)	250mm x 62mm x 119mm / 9.8" x 2.4" x 4.7"
Net Weight (Without Fixings – Width x Height x Depth)	1.4kgs / 3.1lbs
Shipping Dimensions -Width x Height x Depth	305mm x 119mm x 178mm / 12" x 4.7" x 7"
Shipping Weight	3.25lbs / 1.5kg
Power & Connections	Daisy-chained power & data connections
Power Supply	External – PSU30 & PSU05B
Power Input Rating	48V DC
Power Consumption	See PSU specification sheets
Power connector In/Out	XLR4
Data Connectors In/Out	XLR4
Max cable run	~60m / 200' (PSU to last unit)
Control Protocol	ANSI E1.11 DMX 512-A
Cooling System	Forced air – 1 x fan
Construction	Anodised aluminium extrusion
Colour	Black, Gold, Polished Mirror, Green, Red, Pewter, Champagne, Blue & Light Bronze
Built-In Hardware	Interlocking system, quick release catches for connecting as battens, 2 x M10 nuts for additional fixings
IP Rating	IP20
Approvals	CISPR22/EN55022 & CISPR24/EN55024, ICES-003:2004 / FCC Part 15 Subpart B: 2007
Control & Photometric	
LEDs	3 x RGBA single colour output LEDs x 4 cells, total 48 LEDs
LED Engines	4 engines (cells) per fixture
LEDs Per Engine	12
Total LEDs	48
Control Modes	(Single, Block or All) FxHSI, HSI, RGB (*Magic Amber), RGBA, RGBI, Look Select
Dimming Curve	Theatrical
Variable Effects Engine	Yes
Effects Parameters	Grouping, colour speed, colour fan, colour range, colour step, intensity effects, intensity fan
Hot Lumen Output (Combined)	600
Optics	Specialised close focus lens
Beam Angle	25° (approx.)
Beam Distribution	Asymmetrical direct illumination.
CCT	Adjustable 1,000 - 10,000K
Colour Gamut	Performance enhanced
CRI	90
Lamp Life	L70 at 50,000 hours

Color Block PSU-05B V2

Product Code	CHCBPSU05
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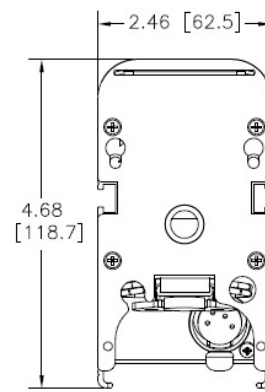
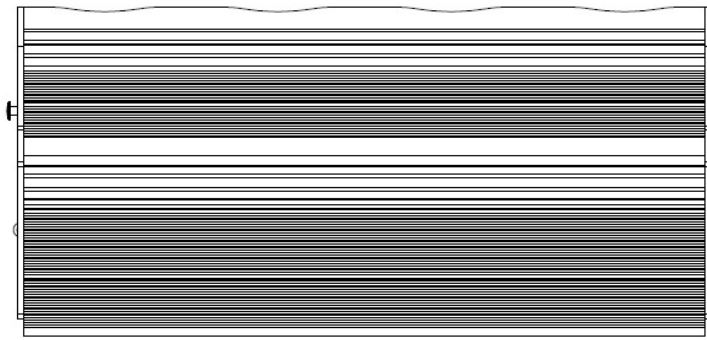
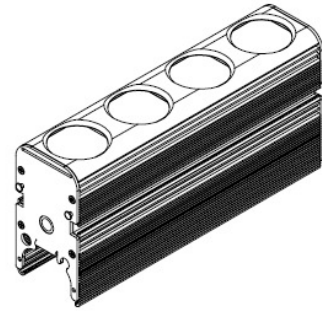
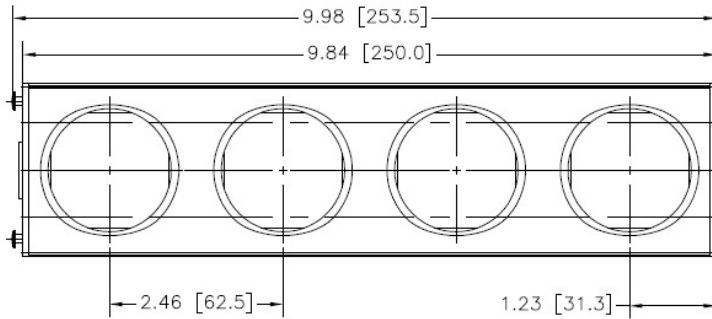
Net Dimensions	Width (A): 219mm / 8.6", Height (B): 88mm / 3.5", Depth (C): 279mm / 11"
Net Weight	3.9kg / 8.6lbs
Shipping Dimensions	Width: 250mm / 14.5", Height: 125mm / 7.5", Depth: 300mm / 3"
Shipping Weight	4.2kg / 9.2lb
Power & Connections	
Power Input Rating	100-240V AC 50/60Hz
Power Consumption	4A @ 120V AC; 2A @ 240V AC
Typical Power & Current	Measurements done with all LEDs at max. intensity. Measurements made at nominal voltage. Allow for deviation of +/- 10%.
Power Connectors In/Out	IEC (Power input), XLR 4-pin (Power & data output)
Data Connectors In/Out	XLR 5-pin male in / XLR 5-pin female thru
Max cable run	
Control Protocol	ANSI E1.11 USITT DMX 512-A
Cooling System	Forced - 1 x fan
Operating Temperature	0°C - 40°C
Construction	Powder coated steel
Colour	Black
IP Rating	IP20
Approvals	UL 609501, CAN/CSAC22.2 NO.609501-03, UL 1573, CAN/CSAC22.2 NO.166-M1983

Color Block PSU-30 V2

Product Code	CHCBPSU30
Net Dimensions	Width (A): 483mm / 19", Depth (B): 368mm / 14.5", Height (C): 89mm / 3.5"
Net Weight	11.1kg / 24.5lbs
Shipping Dimensions	Width: 520mm / 20.5", Height: 146mm / 5.75", Depth: 508mm / 20"
Shipping Weight	11.3kg / 25lb
Typical Power & Current	Measurements done with all LEDs at max. intensity. Measurements made at nominal voltage. Allow for deviation of +/- 10%.
Power & Connections	
Power Input Rating	100-240V AC 50/60Hz
Power Consumption	18A @ 120V AC; 9A @ 240V AC
Power Connectors In/Out	Trailing lead (Power input), XLR 4-pin (Power & data output)
Data Connectors In/Out	XLR 5-pin male in / XLR 5-pin
Max cable run	
Control Protocol	ANSI E1.11 USITT DMX 512-A
Cooling System	Forced - 5 x fans
Operating Temperature	0°C - 40°C
Construction	Powder coated steel
Colour	Black
Built-In Hardware	
IP Rating	IP20
Approvals	UL 609501, CAN/CSAC22.2 NO.609501-03, UL 1573, CAN/CSAC22.2 NO.166-M1983

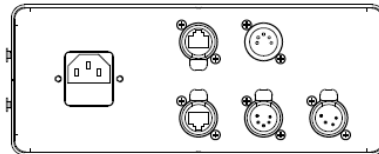
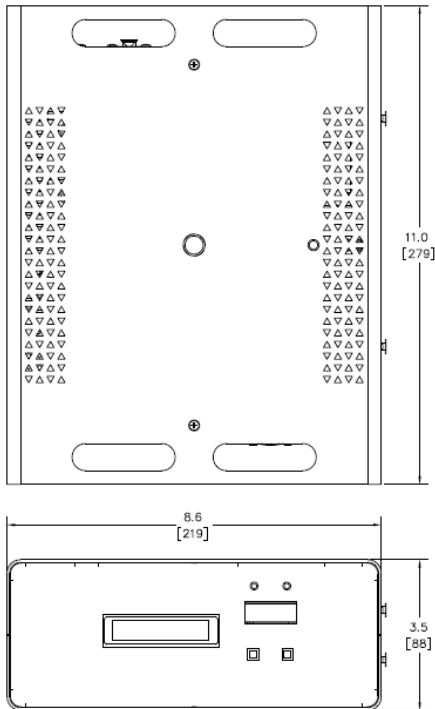
4.2 Drawings

COLOR BLOCK II PLUS



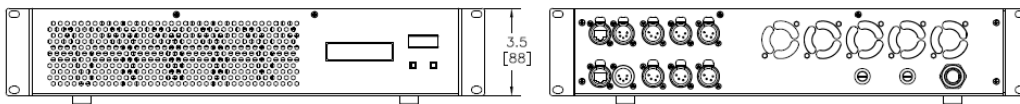
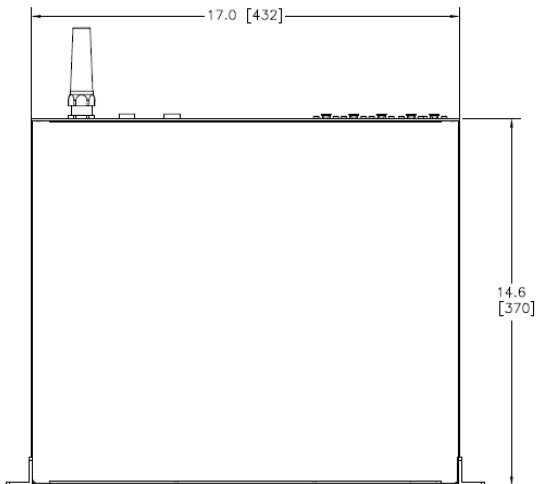
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COLOR BLOCK PSU-05B



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COLOR BLOCK PSU-30



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5. Maintenance

With care, the Color Block 2 Plus fixture and power supply units will require little maintenance. However, as the unit is likely to be used in a stage environment we recommend periodical internal inspection and cleaning of any resulting dust and cracked oil residue. Do not spray liquids on the front or rear panel. If the front enclosure requires cleaning, wipe with a mild detergent on a damp cloth.

6. Battery Replacement

The CR20/32 Lithium battery should last approximately 5 years from the date the battery was made – note that a 4 year life from date of product sale would not be unexpected when delivery and manufacturing times are allowed for.

Caution: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the battery manufacturer's instructions and local regulations.

7. Accessories

Model	Part No
Yoke kit for single Color Block	CHCBSY
Dual mode yoke kit for single Color Block	CHCBCY
Batten bracket kit for up to 5 Color Block units	CHCBBB
Blinder frame for 4 Color Block units	CHCBBF4
Hinge kit for Color Block	CHCBHP
Wall bracket for single Color Block	CHCBWB
Single link cable for use in batten format	MUCX4SDP-0.22
Other cable lengths available ('x' is length in m)	MUCX4SDP-X