

# Chroma-Q<sup>®</sup>

## Color Block 2 Plus Nano<sup>™</sup>

### System

User Manual



**Chroma-Q<sup>®</sup>**  
BRILLIANT SOLUTIONS

Version 1.0 November 2013, Software Version 2.2

PN: 603-0504



## 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

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 Nano 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](mailto:support@chroma-q.com). If the selling dealer is unable to satisfy your servicing needs, please contact the following, for full factory service:

**Outside North America:**

Tel: +44 (0)1494 446000

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For further information please visit the Chroma-Q website at [www.chroma-q.com](http://www.chroma-q.com).

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## 1. Product overview

The **Chroma-Q® Color Block 2 Plus Nano™** is an ultra compact, low-profile and versatile single cell version of the Color Block 2 Plus™ fixture, which shares the unit's single colour RGBA optics, high light output and theatrical grade dimming to create an exceptional all-round feature set.

Based on the same LED engine technology in the popular Color Block 2 Plus, the Color Block 2 Plus Nano is a non-obtrusive, lightweight LED fixture, perfect for discreet placements such as set piece, architectural and stage lighting.

Providing an output of 100 lumens, the Color Block 2 Plus Nano has a very small footprint, packing an incredibly powerful punch for its size and weight.

With its extensive colour palette and high CRI of 90, the Color Block 2 Plus Nano is capable of creating a wide spectrum of colours, from vibrant bolds, to subtle theatrical hues. Incorporating advanced built-in variable colour temperature capabilities, the Color Block 2 Plus Nano also includes tungsten emulation mode.

The unit's camera-friendly LED cell minimizes glare and camera flicker - mixing beautifully to provide single colour output, virtually eliminating the frustrating colour separation shadows synonymous with LED lighting.

Up to 20 Nano units can be used with one standard PSU05B power supply (when used with 5 x Fan Out Boxes) and up to 120 Nano units can be used with one standard PSU30 power supply (when used with 30 x Fan Out Boxes). Color Block 2 Plus Nano and Color Block 2 Plus units can be powered from a single power supply up to the PSU's maximum capacity – i.e. eight Nano units (used with 2 x Fan Out Boxes) and three Color Block 2 Plus units can be run from a single PSU05B.

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



### Chroma-Q Color Block Power Supply and Distribution

#### Color Block 2 Plus Nano™ Fan Out Box

The Color Block 2 Plus Nano Fan Out Box is a 4-way splitter which distributes power and control data from the Color Block power supply units to the Color Block 2 Plus Nano fixtures. A single Color Block 2 Plus Fan Out Box distributes power and control for up to 4 Color Block 2 Plus Nano fixtures. The total cable length from the Fan Out Box to a fixture must not exceed 3m/10ft.



#### Color Block PSU-05B V2

The Color Block PSU-05B V2 is a power supply unit suitable for up to 20 Color Block 2 Plus Nano fixtures. It can be controlled remotely via ANSI E1.11 USITT DMX 512-A in various modes or can operate independently as a standalone system. Power and control data are delivered via 1 XLR4 output. A maximum of 5 Color Block 2 Plus Nano Fan Out Boxes can be connected to a single PSU-05B for power and control of up to 20 Color Block 2 Plus Nano fixtures. Return lines are not required. The total cable length of each output chain must not exceed 60m/200ft. The total cable length from the Fan Out Box to a single Nano must not exceed 3m/10ft. 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 120 Color Block 2 Plus Nano fixtures. It can be controlled remotely via ANSI E1.11 USITT DMX 512-A in various modes or can operate independently as a standalone system. Power and control data are delivered via 6 XLR4 outputs. A maximum of 5 Color Block 2 Plus Nano Fan Out Boxes can be daisy-chained from each single output for power and control of up to 20 Color Block 2 Plus Nano fixtures and for a total of 120 fixtures from 30 Color Block 2 Plus Fan Out Boxes. Return lines are not required. The total cable length of each output chain must not exceed 60m/200ft. In each chain, the total cable length from the Fan Out Box to a fixture must not exceed 3m/10ft. Two in/out RJ45 connectors are available for synchronisation.



## 2. Operation

### 2.1 Unpacking the units

The Color Block 2 Plus Nano package includes 4 fixtures, the yoke kits and a Quick Start Guide. We recommend that you keep the original packaging in case the items need to be returned.

The Color Block 2 Plus Nano Fan Out Box package includes 1 Fan Out Box unit.

The Color Block PSU-05B package includes 1 unit PSU-05B, 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

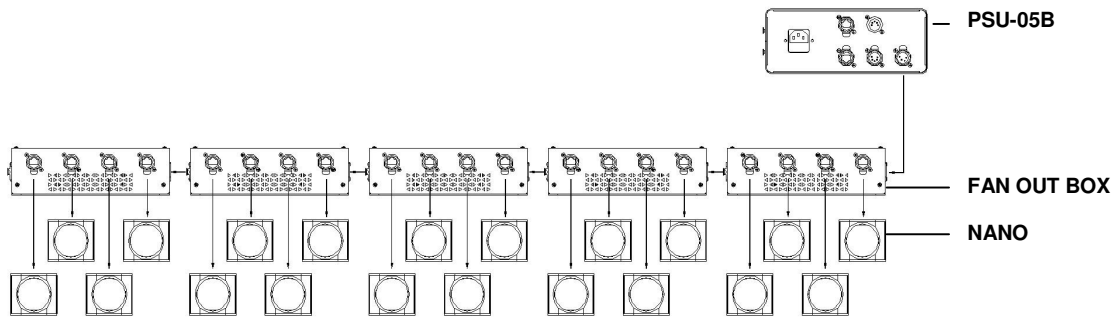
**Power & Data:** Power and control data outputs from the Color Block power supply to the Color Block 2 Plus Nano Fan Out Box is through an XLR 4-pin cable. The drain wire should be connected to the chassis of the XLR.

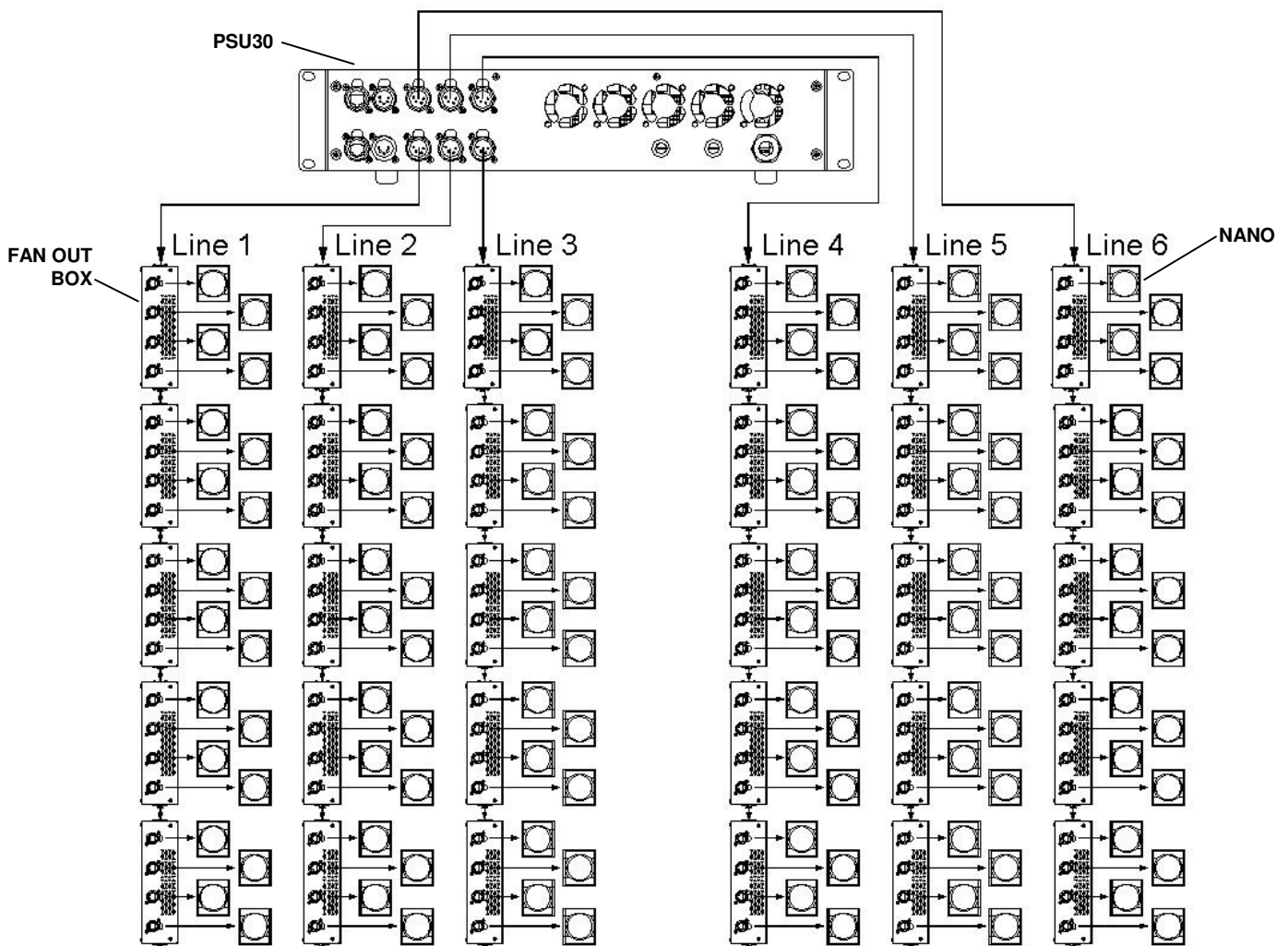
Pin #	Function	Minimum Cable size
1	Ground (-ve)	2.50mm <sup>2</sup> (14 AWG)
2	Control data minus (-)	0.35mm <sup>2</sup> (22 AWG)
3	Control data plus (+)	0.35mm <sup>2</sup> (22AWG)
4	24V DC (+ve)	2.50mm <sup>2</sup> (14 AWG)
Chassis	Cable shield/drain wire	0.25mm <sup>2</sup> (24 AWG)

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.

**Power & Data:** Power and control data outputs from the Color Block 2 Plus Nano Fan Out Box is through 4 x RJ45 connections. The total cable length from the Fan Out Box to a fixture must not exceed 3m/10ft.

**System Diagrams:**





**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 Mounting

The Color Block 2 Plus Nano fixture is shipped with a yoke kit for mounting on the floor, wall and overhead applications. Secure the fixture with a safety bond.

## 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 customize 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 with front and rear supports. Ensure adequate ventilation around the front and rear of the enclosure. Failure to allow adequate ventilation may result in premature failure of the unit.

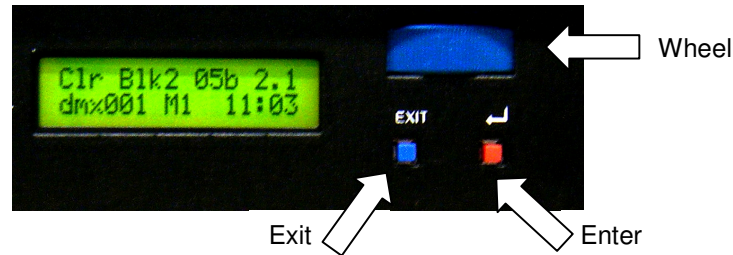


## 2.5 Control

The Chroma-Q Color Block 2 Plus Nano 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 <b>RED</b> button [Return Arrow]	Enter (hold for 2 seconds to save)
Left hand <b>BLUE</b> button [Exit]	Exit without saving
Wheel	Adjusts values or scrolls through menu items



The LCD screen shown above is currently at the Home position and the Main Menu displays the 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. Colour is mixed by adjusting the levels of each of the four colours. White is achieved with all channels at full.

Grouping options: Grouping by fixture unit “single”, grouping by fan out box output “block” and all fixtures as a group “all”.

A Color Block 2 Plus Nano fixture consists of a single “cell” (LED engine) with 3 red, 3 green, 3 blue and 3 amber LEDs.

- In “Single” grouping, RGBA channels in a single fixture are controlled as individual channels.
- In “Block” grouping, RGBA channels of 4 fixtures from 1 Fan Out Box are controlled as 1 group with 4 channels.
- In “All” grouping, RGBA channels in all fixtures connected to a power supply are controlled as 1 group with 4 channels.

### 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 positions
2. Press the Enter button to select a menu option
3. Press the Enter button for 2 seconds to save and the screen goes back to Home/Main Menu
4. Or press the Exit button to exit without saving

### Main Menu / DMX Address

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

1. From the Main Menu, press Enter
2. Scroll the wheel to adjust DMX start address
3. Press Enter for 2 seconds to save

The screen goes back to the Main Menu/Home.

### → Control Mode

The PSU05B/PSU30 can be set to operate in 16 DMX controlled modes in the Color Block 2 Plus system (CB2). (To assign the system, 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	Cell	60	20 x HSI	360	120 x HSI
3	Cell	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	Cell	80	20 x RGBA	480	120 x RGBA
11	Cell	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. 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

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) or the Color Block 2 Plus 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 the 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.

## 2.6 DMX Protocol

### PSU05B DMX Personality Mode 1-3

	In mode 1, grouping is variable & in modes 2 -3, each single Nano is a group (Single)		
PSU05B (v2.2)	Mode 1 (67ch) 7Fx + 20 x HSI	Mode 2 (60ch) 20 x HSI	Mode 3 (60ch) 20 x RGB (with *Magic Amber)
Channel 1	<b>Grouping</b> 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 <sup>nd</sup> to every 20 <sup>th</sup> cells in a group.	Hue for group 1	Red for group 1
Channel 2	<b>Colour Speed</b> 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	<b>Colour Fan</b> 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	<b>Colour Range</b> 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	<b>Colour Step</b> 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	<b>Intensity Effects</b> 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	<b>Intensity Fan</b> 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		
<b>Total DMX Channels</b>	<b>67 DMX channels</b>	<b>60 DMX channels</b>	<b>60 DMX channels</b>

PSU05B DMX Personality Mode 4-6

	<b>In modes 4-6, 4 Nano fixtures from a Fan Out Box are a group (Block)</b>		
<b>PSU05B (v2.2)</b>	<b>Mode 4 (21ch) 6FX + 5 x HSI</b>	<b>Mode 5 (15ch) 5 x HSI</b>	<b>Mode 6 (15ch) 5 x RGB (with *Magic Amber)</b>
Channel 1	<b>Colour Speed</b> 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	<b>Colour Fan</b> 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	<b>Colour Range</b> 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	<b>Colour Step</b> 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	<b>Intensity Effects</b> 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	<b>Intensity Fan</b> 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		
<b>Total DMX Channels</b>	<b>21 DMX channels</b>	<b>15 DMX channels</b>	<b>15 DMX channels</b>

PSU05B DMX Personality Mode 7-9

<b>In modes 7-9, all Nano fixtures from all Fan Out Boxes from the PSU are a group (All)</b>			
<b>PSU05B (v2.2)</b>	<b>Mode 7 (9ch) 6FX + HSI</b>	<b>Mode 8 (3ch) HSI</b>	<b>Mode 9 (3ch) RGB (with *Magic Amber)</b>
Channel 1	<b>Colour Speed</b> 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	<b>Colour Fan</b> 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	<b>Colour Range</b> 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	<b>Colour Step</b> 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	<b>Intensity Effects</b> 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	<b>Intensity Fan</b> 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		
<b>Total DMX Channels</b>	<b>9 DMX channels</b>	<b>3 DMX channels</b>	<b>3 DMX channels</b>



PSU05B DMX Personality Mode 10-11

In modes 10-11, each Nano fixture is a group (Single)		
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	
	<b>80 DMX channels</b>	<b>80 DMX channels</b>

PSU05B DMX Personality Mode 12-13

In modes 12-13, 4 Nano fixtures from a Fan Out Box 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	
	<b>20 DMX channels</b>	<b>20 DMX channels</b>

PSU05B DMX Personality Mode 14-15

In modes 14-15, all Nano fixtures from all Fan Out Boxes from the PSU 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
	<b>4 DMX channels</b>	<b>4 DMX channels</b>

	<b>In mode 16, grouping is variable</b>		
<b>PSU05B (v2.2)</b>	<b>Mode 16 (1ch) Look Store</b>		
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

PSU30 (v2.2)	In mode 1, grouping is variable & in modes 2 -3, each single Nano is a group (Single)		
	Mode 1 (367ch) 7FX + 120 x HSI	Mode 2 (360ch) 120 x HSI	Mode 3 (360ch) 120 x RGB (with *Magic Amber)
Channel 1	<b>Grouping</b> <b>0-100</b> Variable grouping range between 1-120 cells with FX running within the group. <b>102-206</b> variable grouping range between 1-120 cells with FX running between the groups. <b>209-255</b> Variable grouping range for every 2 <sup>nd</sup> to every 120 <sup>th</sup> cells in a group.	Hue for group 1	Red for group 1
Channel 2	<b>Colour Speed</b> <b>0-255</b> Variable speed of colour scrolling. From static at 0 to maximum at 255.	Saturation for group 1	Green for group 1
Channel 3	<b>Colour Fan</b> <b>0-255</b> 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	<b>Colour Range</b> <b>0</b> Full spectrum <b>1-255</b> 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	<b>Colour Step</b> <b>0-255</b> 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	<b>Intensity Effects</b> <b>0</b> Static <b>1-63</b> Fade on, fade off. Variable range, 63 the fastest <b>64-127</b> Fade on, snap off. Variable range, 127 the fastest <b>128-191</b> Snap on, fade off. Variable range, 191 the fastest. <b>192-255</b> Snap on, snap off (strobe). Variable range, 255 the fastest.	Intensity for group 2	Blue for group 2
Channel 7	<b>Intensity Fan</b> 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		
<b>Total DMX channels</b>	<b>367 DMX channels</b>	<b>360 DMX channels</b>	<b>360 DMX channels</b>

PSU30 DMX Personality Mode 4-6

	In modes 4-6, 4 Nano fixtures from a Fan Out Box are 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	<b>Colour Speed</b> 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	<b>Colour Fan</b> 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	<b>Colour Range</b> 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	<b>Colour Step</b> 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	<b>Intensity Effects</b> 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	<b>Intensity Fan</b> 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		
<b>Total DMX Channels</b>	<b>96 DMX channels</b>	<b>90 DMX channels</b>	<b>90 DMX channels</b>

PSU-30 DMX Personality Mode 7-9

	<b>In modes 7-9, all Nano fixtures from all Fan Out Boxes from the PSU are a group (All)</b>		
<b>PSU30 (v2.2)</b>	<b>Mode 7 (9ch) 6FX + HSI</b>	<b>Mode 8 (3ch) HSI</b>	<b>Mode 9 (3ch) RGB (with *Magic Amber)</b>
Channel 1	<b>Colour Speed</b> 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	<b>Colour Fan</b> 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	<b>Colour Range</b> 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	<b>Colour Step</b> 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	<b>Intensity Effects</b> 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	<b>Intensity Fan</b> 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		
<b>Total DMX Channels</b>	<b>9 DMX channels</b>	<b>3 DMX channels</b>	<b>3 DMX channels</b>

PSU30 DMX Personality Mode 10-11

	<b>In modes 10-11, each Nano fixture is a group (Single)</b>	
<b>PSU30 (v2.2)</b>	<b>Mode 10 (480ch) RGBA</b>	<b>Mode 11 (480ch) RGBI (with *Magic Amber)</b>
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	
	<b>480 DMX channels</b>	<b>480 DMX channels</b>

PSU30 DMX Personality Mode 12-13

	<b>In modes 12-13, 4 Nano fixtures from a Fan Out Box is a group (Block)</b>	
<b>PSU30 (v2.2)</b>	<b>Mode 12 (120ch) RGBA</b>	<b>Mode 13 (120ch) RGBI (with *Magic Amber)</b>
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	
	<b>120 DMX channels</b>	<b>120 DMX channels</b>

PSU30 DMX Personality Mode 14-15

	<b>In modes 14-15, all Nano fixtures from all Fan Out Boxes from the PSU are a group (All)</b>	
<b>PSU30 (v2.2)</b>	<b>Mode 14 (4ch) RGBA</b>	<b>Mode 13 (4ch) RGBI (with *Magic Amber)</b>
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
	<b>4 DMX channels</b>	<b>4 DMX channels</b>

	<b>In mode 16, grouping is variable</b>		
<b>PSU30 (v2.2)</b>	<b>Mode 16 (1ch) Look Store</b>		
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 Nano

Product Code	CHCBN
Net Dimensions(Without Fixings) - Width x Height x Depth	87mm x 126mm x 62 / 3.4" x 5" x 2.5"
Net Weight (Without Fixings)	.3 kg / .7 lbs
Shipping Dimensions - Width x Height x Depth	305mm x 127mm x 171mm / 12.5" x 5" x 6.75" (Box of 4 units)
Shipping Weight	1.8 kg / 4 lbs (Box of 4 units)
Power & Connections	Daisy-chained power & data connections via external 4-way splitter
Power Supply	External - PSU05B & PSU30
Power Input Rating	48V DC per 4-way external splitter box
Power Factor	See power supply specification sheets
Power Consumption	See power supply specification sheets
Typical Power & Current	Measurements done with all LEDs at maximum intensity. Measurements made at nominal voltage. Allow for a deviation of +/- 10%.
Power Connectors In/Out	RJ45 Chassis
Data Connectors In/Out	RJ45 Chassis
Control Protocol	ANSI E1.11 USITT DMX 512-A
Cooling System	Convection
Operating Temperature	0°C to 40°C
Construction	Anodised aluminium extrusion
Colour	Black
Built-In Hardware	2 x M10 Nuts
IP Rating	IP20
Approvals	CE
Control & Photometric	
LED Engines	4
LEDs Per Engine	12 (3 x RGBA)
Total LEDs	12
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, fan, range, step, intensity effects, intensity fan
Hot Lumen Output (Combined)	100
Optics	Specialised close focus lens
Beam Angle	~25° (approx.)
Beam Distribution	Asymmetrical direct illumination
CCT	Adjustable 1,000K - 10,000K
Color Gamut	Performance enhanced
CRI	90
Lamp Life	L70 at 50,000 hours

### Color Block 2 Plus Nano Fan Out Box

Product Code	CHCBNFO
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Net Dimensions (Without Fixings) - Width x Height x Depth	213mm x 63mm x 146mm / 8.4" x 2.5" x 5.75"
Net Weight (Without Fixings - delete if not appropriate)	.5 kg / 1 lb.
Shipping Dimensions - Width x Height x Depth	305mm x 127mm x 171mm / 12.5" x 5" x 6.75"
Shipping Weight	0.9 kg / 2 lbs
Power & Connections	
Power Supply	External - PSU05B & PSU30
Power Input Rating	48V DC (4 way distribution)
Power Connectors In/Out	XLR 4-pin, 4 x RJ45 Chassis – Out
Data Connectors In/Out	XLR 4-pin, 4 x RJ45 Chassis – Out
Max cable run	~60m / 200ft - XLR 4-pin (PSU to last unit), RJ45 - 3m / 10' (Out to fixture)
Control Protocol	ANSI E1.11 USITT DMX 512-A
Cooling System	Convection
Operating Temperature	0°C to 40°C
Construction	Powder coated aluminium
Colour	Black
IP Rating	IP20
Approvals	CE

#### Color Block PSU-05B V2

Product Code	CHCBPSU05
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	60m/200'
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

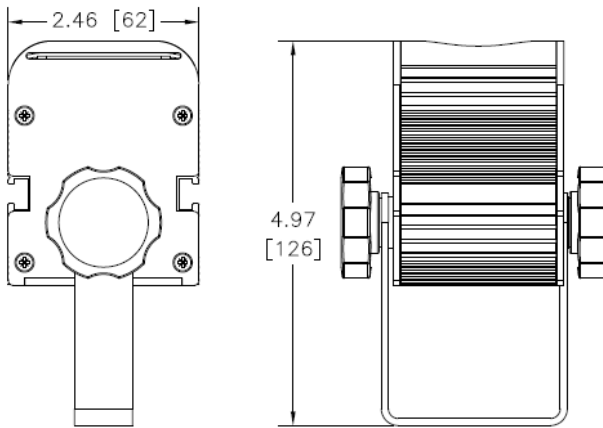
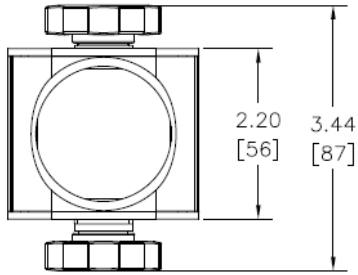
#### Color Block PSU-30 V2

Product Code	CHCBPSU30
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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	60m/200'
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
IP Rating	IP20
Approvals	UL 609501, CAN/CSAC22.2 NO.609501-03, UL 1573, CAN/CSAC22.2 NO.166-M1983

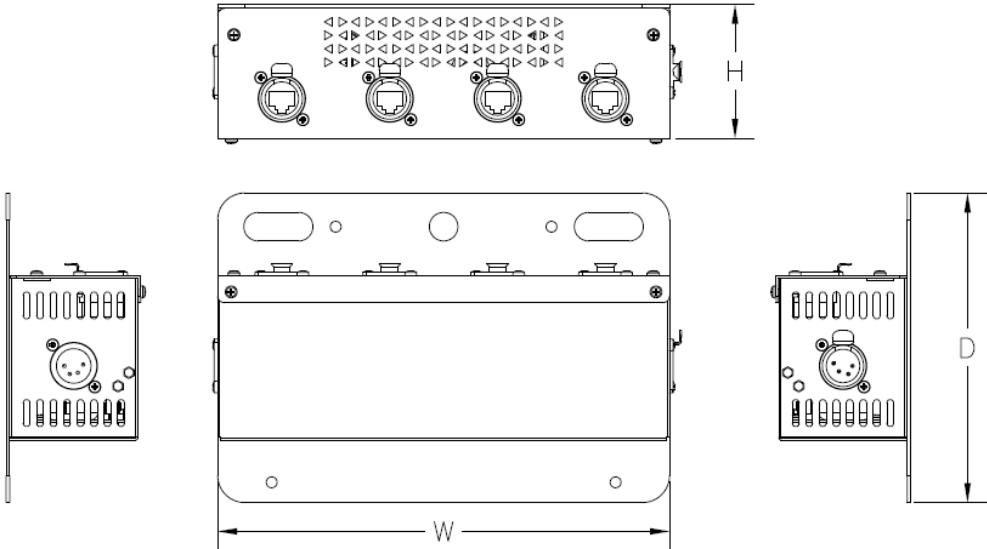
## 4.2 Drawings

# Color Block 2 Plus Nano



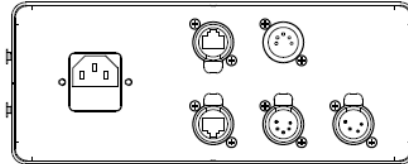
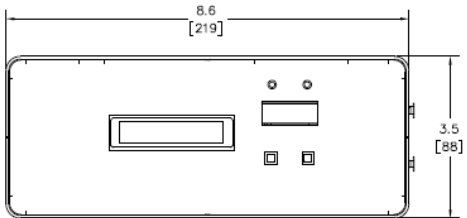
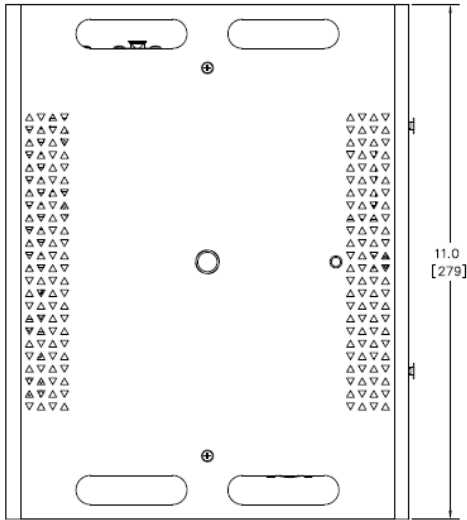
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# Color Block 2 Plus Nano Fan Out Box



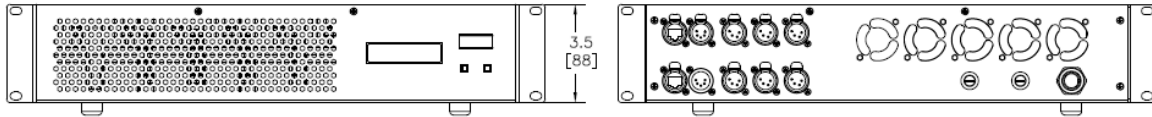
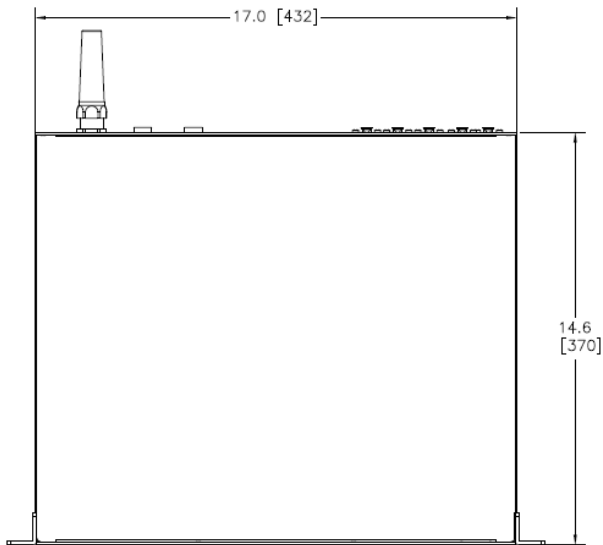
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# COLOR BLOCK PSU-05B



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# COLOR BLOCK PSU-30



**DISCLAIMER:** Dimensions and illustrative drawings contained herein are accurate to the company's knowledge at the time of printing, however specifications are subject to change without notice

## 5. Maintenance

With care, the Color Block 2 Plus Nano fixture and power supply units 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 in the power supply units 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.