9. Mode



9.1 Mode Select Options

RGBA (Red, Green, Blue and Amber) provides 4 control channels that directly affect the intensity of each color within a group. Color is mixed by adjusting the levels of each of the four channels. The DMX footprint will be determined by the grouping option selected. White (of about 4,000K) is achieved with all channels at full. Refer to the table below for detail on grouping and DMX footprints. This mode assigns 4 DMX channels to set Red, Green, Blue and Amber levels in each cell, or group of cells.

- To set the fixture to RGBA mode,
- 1. On the Main Menu, tap Mode
- 2. On the Mode screen, tap RGBA
- 3. Tap Apply to save or Escape to cancel

RGB (Red, Green, Blue with *Magic Amber[™]) gives 3 control channels directly affecting the intensity of the corresponding group. Color is mixed by adjusting the levels of the three primary colors in each group. The DMX footprint will be determined by grouping option selected. White is achieved with all channels at full including Magic Amber.

- To set the RGB mode,
- 1. On the Main Menu, tap Mode
- 2. On the Mode screen, tap RGB
- 3. Tap Apply to save or Escape to cancel

HSI (Hue, Saturation and Intensity) gives 3 control channels to each group; 2 color channels for hue and saturation and one 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 colors available and the saturation channel specifies the saturation level of that color. The saturation channel is fully saturated at full. White is achieved with the intensity channel to full and the saturation channel at zero. *Magic Amber is the term used for the unit's ability to bring in amber when mixing colors that require it.

Look Sel (Look Select) gives 1 control channel to select a preset look based on the DMX value. Refer to the table below for factory presets.

MASTER sets the fixture to output a DMX stream for control of any fixtures connected "downstream".

www.chroma-q.com -

9.2 Grouping Options

Color Force II^{TM} offers a powerful, wide variety of grouping options for the individual cells (or pixels) within each fixture. Grouping is independent of control Mode selection. A Color Force II^{TM} 72 fixture consists of 24 cells, a Color Force II^{TM} 48 fixture consists of 16 cells and a Color Force II^{TM} 12 fixture consists of 4 cells. "Cell" or pixel grouping allows individual control of each single cell or various grouping of cells as defined in the tables below. In "x24/x16/x4" grouping, all cells in the Color Force II^{TM} 72/48/12, the fixtures will be controlled as 1 group. In x1 each cell is being controlled independently for a total of 24, 16 or 4 individual cells for the Color Force II^{TM} 72, 48 or 12 respectively. See tables below where the number in the table indicates the group number. In RGBA Mode each group uses 4 DMX slots; in RGB & HSI Modes each group uses 3 DMX slots.

Od / Ev: Controls every other cell (pixels) in two groups of control – odd cell and even cells.

Skp2: Provides control of three groups comprising every third cell (pixel) on the fixture.

Skp3: Provides control of four groups comprising every forth cell (pixel) on the fixture.

Skip6: Provides control of six groups comprising every sixth cell (pixel) on the fixture.

Grouping & DMX Addressing

Grouping	Colo	r Foi	rce II ¹	™ 72		Flip	o: L -)	≻R																
Group Selected												Grou	p Nun	nber(s	;)									
x24	1	1	1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
x12	1	1	1	1	1	1	1	1	-	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
x8	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
х6	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4
х4	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
xЗ	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8
x2	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12
x1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Od/Ev	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Skp2	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Skp3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Skp6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6

Grouping	: Colo	or Force II [™] 48 Flip: L→R														
Group Selected							G	iroup) Nun	nber(s)					
X16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
x8	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
х4	1	1	1	1	2	2	2	2	З	3	3	3	4	4	4	4
x2	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
x1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Od/Ev	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Skp3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Skp7	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8

– www.chroma-q.com –

Color Force	II [™] 1	2	L	→R
Group Selected	Gro	oup I	Numt	oer(s)
x4	1	1	1	1
x2	1	1	2	2
x1	1	2	3	4
Od/Ev	1	2	1	2

Group DMX address examples: Group 1: Fixture DMX address Group 2: Fixture DMX address + 4 (RGBA) or +3 (RGB or HSI) Group 3: Fixture DMX address + 8 (RGBA) or +6 (RGB or HSI) Group X: Fixture DMX address + (X - 1) x 4 (RGBA) or + (X - 1) x 3 (RGB or HSI) Group 24: Fixture DMX address + 92 (RGBA) or + 69 (RGB or HSI)

9.3 Flip Options

The starting DMX address can be selected to be on the right or left of the fixture as indicated on the display. "Left" is defined as the side where the power & data enter the fixture, "right" is the side where power and data exit. Shown below is the example of address ordering for a Color Force II^{TT} 72 with x1 Grouping selected.

L→R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
R→L	24	23	22	21	20	19	18	17	16	12	14	13	12	11	10	9	8	7	6	5	4	3	2	1

9.4 Strobe Options

These options allow LED's to flash at different frequency, duration and density depending on the selection and application requirements. All these factors can be varied using a DMX console. Current mode on Main Screen will display sRGBA or sRGB / sHSI, where the "s" indicates a Strobe function is ON. Multiple strobe options can be selected at the same time.



OFF: Select this and the Press Apply to disable strobe option.

Strobe On: Press this button and then select Apply to enable strobe options. This will add 2 control channels at the beginning of the current channel footprint; first channel for flash frequency and second channel for flash duration. This setting will be indicated on Main menu touch screen.

ON TOP: Selecting Strobe On with On Top option will add 5 or 6 channels at the beginning of the fixture DMX footprint based on current mode selected. For RGBA – 6 extra channels and for RGB/HSI – 5 extra channels as follows: flash, frequency, flash duration, On Top strobe color. On Top color will be 3 or 4 channels depending on control mode.

RANDOM: Choosing this option LED's flashing frequency and duration can be randomized allowing unit to have a base color with strobe enabled adding another 1 extra channel for density (how may pixels are flashed at a time). Lowest density value is 1, highest is all 24 pixels.

Strobe Summary

Strobe Mode	Additional Channels	Notes
On	Frequency, Duration	Color of strobe flash determined by DMX values following control channels and Mode & Grouping selected by user
On Top	Frequency, Duration, Color	Color of strobe flash On Top determined by color selected in Additional Channels, base color determined by DMX values following and Mode & Grouping selected
Random	Frequency, Duration, Density	Color of strobe flash determined by DMX values following Additional Channels and Mode & Grouping selected by user
On Top + Random	Frequency, Duration, Density, Color	Color of strobe flash On Top determined by color selected in Additional Channels, base colour determined by DMX values following and Mode & Grouping selected

DMX Footprints - Number of DMX Channels used in Mode/Grouping Combinations

Color Force II ^T	™ 72											
	Str	robe Off		S	Strobe Or	1	Stro	be on To	р	Strob	e Rando	m
Control Mode	RGBA	RGB	HSI	RGBA	RGB	HSI	RGBA	RGB	HSI	RGBA	RGB	HSI
Grouping												
x24	4	3	3	6	5	5	10	8	8	11	9	9
x12	8	6	6	10	8	8	14	11	11	15	12	12
x8	12	9	9	14	11	11	18	14	14	19	15	15
x6	16	12	12	18	14	14	22	17	17	23	18	18
x4	24	18	18	26	20	20	30	23	23	31	24	24
x3	32	24	24	34	26	26	38	29	29	29	30	30
x2	48	36	36	50	38	38	54	41	41	55	42	42
x1	96	72	72	98	74	74	102	77	77	103	78	78
Od/Ev	8	6	6	10	8	8	14	11	11	15	12	12
Skp2	12	9	9	14	11	11	18	14	14	19	15	15
Skp3	16	12	12	18	14	14	22	17	17	23	18	18
Skp6	24	18	18	26	20	20	30	23	23	31	24	24
Look Sel							1					

Color Force	II™ 48											
	Sti	robe Off		S	Strobe Or	ו	Stro	be on To	ор	Strob	e Rando	m
Control Mode	RGBA	RGB	HSI	RGBA	RGB	HSI	RGBA	RGB	HSI	RGBA	RGB	HSI
Grouping												
X16	4	3	3	6	5	5	10	8	8	11	9	9
X8	8	6	6	10	8	8	14	11	11	15	12	12
X4	16	12	12	18	14	14	22	17	17	23	18	18
X2	32	24	24	34	26	26	38	29	29	39	30	30
x1	64	48	48	66	50	50	70	53	53	71	54	54
Od/Ev	8	6	6	10	8	8	14	11	11	15	12	12
Skp3	16	12	12	18	14	14	22	17	17	23	18	18
Skp7	32	24	24	34	26	26	38	29	29	39	30	30
Look Sel							1					

Color Force	ll™12											
	Str	robe Off		S	trobe On	Ì	Stro	be on To	р	Strob	e Rando	n
Control Mode	RGBA	RGB	HSI	RGBA	RGB	HSI	RGBA	RGB	HSI	RGBA	RGB	HSI
Grouping												
X4	4	3	3	6	5	5	10	8	8	11	9	9
X2	8	6	6	10	8	8	14	11	11	15	12	12
x1	16	12	12	18	14	14	22	17	17	23	18	18
Od/Ev	8	6	6	10	8	8	14	11	11	15	12	12
Look Sel							1					

9.5 Look Select

The Color Force II[™] has 31 internal preset Looks for recall using the Look Sel mode. Looks can also be used for the stand-alone Master mode, or for recall in the event of loss of DMX described elsewhere in this manual. Looks can be recorded to the internal flash memory and will be preserved on power down. Note that looks will be returned to factory default settings if a Default Reset is performed.

The Look Sel mode assigns 1 DMX channel to access the saved Looks. To access a look using the Look Sel mode,

- 1. From the Main Menu, tap Mode.
- 2. From Mode screen, tap Look Sel.
- 3. Tap Apply to save or Escape to cancel.
- 4. If enabled, the user can then select one of the stored looks using a DMX value from an external DMX console. The DMX values and associated looks are shown on the table below. Note that transitions between looks are "bumps" not fades.



- www.chroma-q.com -

Color Force II [™]			
Channel levels and t	he corre	sponding Default Look number	s:
Channel Level (%)	Look	Description	
0	OFF	OFF	
1–2	1	Red Full	
3–5	2	Pink Full	
6–9	3	Orange Full	
10-11	4	Light Orange Full	
12–15	5	Yellow Full	
16–19	6	Light Yellow Full	
20-22	7	Green Full	
23-25	8	Light Green Full	
26-27	9	Cyan Full	
29-32	10	Light Cyan Full	
33–35	11	Blue Full	
36-38	12	Light Blue Full	
39-42	13	2800 White	
43-45	14	3200 White	
46-48	15	4000 White	
49-51	16	5600 White	
52-54	17	Empty	
56-58	18	Empty	
59-61	19	Empty	
62-64	20	Empty	
65-68	21	Empty	
69-71	22	Empty	
72-74	23	Empty	
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	

9.6 Master Mode

Color Force II[™] fixtures can operate without DMX input and can act as a standalone master control for other fixtures. Once master mode is selected, Color Force II[™] fixtures will transmit DMX data so other connected units can be controlled by the master Color Force II[™] fixture.

Note: The connection of a DMX console is not allowed for this mode of operation. If a DMX source connection is detect, the following screen appears:



- Remove the DMX cable.
- Change the mode to Master.

When the warning screen appears, follow the display text prompts.

Color Force II DMX Map

	Mode =	RGBA								
	s	trobe Off	S	trobe On	Strot	e On Top	Stro	be Random	Strobe O	n Top + Random
DMX		Pixel/Cell		Pixel/Cell		Pixel/Cell		Pixel/Cell		Pixel/Cell
1	R	d on ted	Strob	e Frequency	Strobe	Frequency	Strob	e Frequency	Strob	e Frequency
2	G	base Selec <<	Stro	be Duration	Strob	e Duration	Strol	be Duration	Strol	be Duration
3	В	tition uping	R	d on ted	R - Inte	nsity Strobe	Strobe	Randomization	Strobe	Randomization
4	Α	Repe Gro	G	base Selec	G - Inte	nsity Strobe	R	no ba	R - Int	ensity Strobe
5			В	tition uping	B - Inte	nsity Strobe	G	based electe	G - Int	ensity Strobe
6	1		A	Groi	A - Inte	nsity Strobe	В	oup S	B - Int	ensity Strobe
7]				R	d on ted	Α	Repe	A - Int	ensity Strobe
8]				G	base Selec			R	d on ted
9	1				в	uping			G	base Selec
10	1				А	Gro			В	tition uping
11	1			1					A	Gro

www.chroma-q.com