

# Quick Start Guide

## Chroma-Q®

Studio Force II + 72™,  
Studio Force II + 48™,  
Studio Force II + 12™



**Chroma-Q®**  
BRILLIANT SOLUTIONS

For a full product manual please visit [www.chroma-q.com](http://www.chroma-q.com)  
Part Number: CQ1641-5000, CQ1641-5100, CQ1641-5500  
CQ1641-4000, CQ1641-4100, CQ1641-4500,  
CQ1652-1150, CQ1652-1650, CQ1652-1250/  
Model: 1641-5000, 1641-5100, 1641-5500  
1641-4000, 1641-4100, 1641-4500,  
1652-1150, 1652-1650, 1652-1250/  
Software Version: Addressing 4.0, Engine 4.0

## 1. Overview

The Chroma-Q® Studio Force II +™ LED batten range is a powerful lineup for professional lighting industry, specifically designed for TV Broadcast and film applications but also performs particularly well in other situations demanding high quality tunable white light such as touring key lights, exhibitions, corporate events and theatre lighting.

In addition, the advanced control management technologies to evenly washing large areas, units are suitable for a wide range of, lighting applications, including key-lighting, up-lighting, backlighting and wash applications, together give you a radically increased color palette, a high CRI and theatrical grade dimming, all in the same fixture. Available in 6 ft/1.8m, 4 ft./1.2m, 1 ft./0.3m versions.

The Studio Force II +™ features built-in power supplies which can operate as a standalone unit or remotely controlled through ANSI E1.11 USITT DMX 512-A protocol. via a cable or a Lumen Radio wireless connection, when using the optional radio module.

## 2. Safety



### Caution

1. This product is for professional use only. It is NOT intended for domestic or outdoor use.
2. The bright flash of light during power-up and continuous strobe effect may cause epileptic seizure.
3. This product must be used with safety cable.

## 3. Cabling

The Studio Force II +™ use Neutrik powerCon TRUE1 connectors for power input and through. The DMX control data input and through connections from an external control console are via XLR 5-pin connectors. The chassis are ground bonded.

**Note:** The maximum number of Studio Force II + 72™ fixtures running off a single power input cable is 2 at 120V AC or 4 at 240V AC. The maximum number of Studio Force II + 48™ fixtures running off a single power input cable is 3 at 120V AC or 6 at 240V AC. The maximum number of Studio Force II + 12™ fixtures running off a single power input cable is 12 at 120V AC or 22 at 240V AC. Please refer to ANSI and AWG standards for the maximum data and power cable lengths.

## 4. Mounting

The Studio Force II +™ are equipped with built-in adjustable mounting brackets for floor, wall and truss mounting applications. Use the pair of quick release levers for easy tilt adjustment. Secure the fixture with a safety bond through the fixing hold that is built into the end plates of the fixture.

## 5. Orientation

The Studio Force II +™ has symmetrical lenses and can be used in any orientation.

## 6. Optics

“Cyc Lens” and “Border Lens” are slide-in optical accessories available to adjust the light output. Two accessory slots are available for locking. Spring Plungers are pre-installed at the far ends of both accessory slots to lock in-place the slide-in panels. The height of the spring plungers, is preset and fixed with no need for further adjustment.

## 7. Control

The control functions, of the Studio Force™ 72, 48 and 12, are accessed through the touchscreen display on the rear of the fixture. For more details on all of the settings, please refer to the user manual located on the Chroma-Q® website: [www.chroma-q.com](http://www.chroma-q.com).

A Focus button is provided on the back of the fixture to turn the fixture on full for focusing. Press the button a second time to return to normal operation.

From the Home/Main Menu, press one of the four buttons located at the bottom of the screen to adjust the user settings

### → DMX

1. To set the DMX start address, press DMX from the home screen.
2. Enter the DMX start address using the numeric buttons.
3. Press Apply to save.

## → Mode

There are 5 DMX control modes featuring and 12 grouping options to maximize your creative control. Access and select control modes and grouping by pressing the Mode button from the Main Menu. Press Apply once you have selected the settings for your show.

1. Press the Mode button on the Main Menu.
2. Select your control mode: RGBW, RGB, KHI, HIS, Cine Q.
3. Select your Grouping: (X1, X4, All, od/ev).
4. Press Apply to save the settings.

## → Setup

Press Setup to access the technical settings for the fixture. From the Setup screen, you can set and/or view the following parameters:

**ETC Compatibility:** The fixture can be set for compatibility with the ETC Color Picker when using ETC consoles.

**DMX Data:** View the DMX data being received relevant to the fixture.

**Fan Speed:** Set the fan mode to Quiet, Studio, Live or Live Quiet

**Rotate Display:** Rotates the display.

**Frequency:** Allows setting of the PWM frequency from 750Hz to 24kHz. Note that lower PWMs result in smoother fades

**DMX Lost:** Selects what happens when the control signal is lost; Hold last look, Off, or plays back a prerecorded Look.

**Lock:** Locks the screen.

**Reset:** Provides for fixture processor reset to factory, or user recorded settings.

**Upload Engine:** Provides access to upload software revisions for the light engines.

**Fw Version:** Displays installed versions of processor and light engine firmware.

**DMX Source:** Select whether DMX data is being read from a wired or wireless source.

**Eng Temp:** Displays the light engine temperatures.

**\*\*Note:** Always remember to press Apply to store the setting

## → Looks

From the Looks screen you can record and playback looks

## Factory Default Setting

	SFII 72	SFII 48	SFII 12
DMX Address	1	1	1
Foot Print	4ch (1-4)	4ch (1-4)	4ch (1-4)
Mode	RGBW x	RGBW x	RGBW x
Lock	Disabled	Disabled	Disabled
Group	x24	X16	x4
DMX Lost	Last data	Last data	Last data
Fan Speed	Live-Quiet	Live-Quiet	Live-Quiet
Frequency	750Hz	750Hz	750Hz
Reset	Default	Default	Default
ETC	Disabled	Disabled	Disabled

## 8. Grouping Options

Studio Force II +™ offers a powerful, wide variety of grouping options for the individual cells (or pixels) within each fixture. Please refer to the manual for more detailed information. A copy of the manual can be found at the Chroma-Q® website – [www.chroma-q.com/support/downloads](http://www.chroma-q.com/support/downloads)

Studio Force II +™ 12	L→R			
	Group Number(s)			
All	1	1	1	1
x1	1	2	3	4
Od/Ev	1	2	1	2

Grouping: Studio Force II +™ 48								Flip: L→R								
Group	Group Number(s)															
All	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
x4	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4
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

Grouping: Studio Force II +™ 72																
Flip: L→R					Flip: L→R											
Group Selected	All	x4	x1	Od/Ev	All	x4	x1	Od/Ev	All	x4	x1	Od/Ev	All	x4	x1	Od/Ev
Group Number(s)	1	1	1	1	1	4	13	1	1	4	13	1	1	4	13	1
	1	1	2	2	1	4	14	2	1	4	14	2	1	4	14	2
	1	1	3	1	1	4	15	1	1	4	15	1	1	4	15	1
	1	1	4	2	1	4	16	2	1	4	16	2	1	4	16	2
	1	2	5	1	1	5	17	1	1	5	17	1	1	5	17	1
	1	2	6	2	1	5	18	2	1	5	18	2	1	5	18	2
	1	2	7	1	1	5	19	1	1	5	19	1	1	5	19	1
	1	2	8	2	1	5	20	2	1	5	20	2	1	5	20	2
	1	3	9	1	1	6	21	1	1	6	21	1	1	6	21	1
	1	3	10	2	1	6	22	2	1	6	22	2	1	6	22	2
	1	3	11	1	1	6	23	1	1	6	23	1	1	6	23	1
	1	3	12	2	1	6	24	2	1	6	24	2	1	6	24	2

Grouping mode	Description	Number of individual cells control		
		Studio Force II + 12	Studio Force II + 48	Studio Force II + 72
All	Entire fixture as one	1	1	1
X4	Group by 4 cells	1	4	6
Odd/Even	Fixture is alternating cells	2	2	2
Single	Individual cell control	4	16	24

## 9. DMX Map

RGBW	Value	Function	Fade Status	Default Value
1	0 - 255	<b>Red</b>	Fade	0
		Minimum → Maximum Intensity		
2	0 - 255	<b>Green</b>	Fade	0
		Minimum → Maximum Intensity		
3	0 - 255	<b>Blue</b>	Fade	0
		Minimum → Maximum Intensity		
4	0 - 255	<b>White</b>	Fade	0
		Minimum → Maximum Intensity		
5**	0 - 255	<b>Extended Controls</b>	Snap	0
		See Control channel table for details		

\*\* Note: Channel 1 through 4 will repeat for each cell control according to the selected grouping mode. Control parameter is only present when Extended mode is enabled.

Control parameter is always last, its position will change according to the grouping mode. For example, in odd/even grouping mode, the control parameter would be on 9

HSi	Value	Function	Fade Status	Default Value
1		<b>Hue*</b>		
	0 - 255	Color Spectrum 0 → 360 Red → Red	Fade	0
2		<b>Saturation</b>		
	0 - 255	Desaturated → Saturated	Fade	0
3		<b>Intensity</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
4**		<b>Extended Controls</b>		
	0 - 255	See Control channel table for details	Snap	0

**Note:** Channel 1 through 3 will repeat for each cell control according to the selected grouping mode

\* With Legacy hue mode enabled, the Hue channel is from Blue to Blue

\*\* Control parameter is only present when Extended mode is enabled

Control parameter is always last, its position will change according the grouping mode.

For example, in odd/even grouping mode, the control parameter would be on 7

KHi	Value	Function	Fade Status	Default Value
1		<b>Kelvin</b>		
	0 - 255	Warm → Cold	Fade	128
	0	2800K		
	64	3200K		
	128	4400K		
	192	5600K		
255	6500K			
2		<b>Hue</b>		
	0 - 255	Minus Green → + Green	Fade	128
3		<b>Intensity</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
4**		<b>Extended Controls</b>		
	0 - 255	* See Control channel table for details	Snap	0

\*\* **Note:** Channel 1 to 3 will repeat for each cell control according to the selected grouping mode

Control parameter is only present when Extended mode is enabled

Control parameter is always last, its position will change according the grouping mode.

For example, in odd/even grouping mode, the control parameter would be on 7

Cine-Q i-KH-RGBW	Value	Function	Fade Status	Default Value
1		<b>Intensity</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
2		<b>Kelvin</b>		
	0 - 255	Warm → Cold	Fade	128
	0	2800K		
	64	3200K		
	128	4400K		
	192	5600K		
255	6500K			
3		<b>Hue (Tint)</b>		
	0 - 255	Minus Green → + Green	Fade	128
4		<b>Red</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0

Cine-Q i-KH-RGBW	Value	Function	Fade Status	Default Value
5		<b>Green</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
6		<b>Blue</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
7		<b>White</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
8		<b>Q-Fade</b>		
	0 - 255	KH → RGBW	Fade	0
9**		<b>Extended Controls</b>		
	0 - 255	* See Control channel table for details	Snap	0

\* **Note:** Channel 1 through 8 will repeat for each cell control according to the selected grouping mode

Control parameter is only present when Extended mode is enabled

Control parameter is always last, its position will change according to the grouping mode.

For example, in odd/even grouping mode, the control parameter would be on 17

Cine-Q i-KH-RGBW 16bit	Value	Function	Fade Status	Default Value
1		<b>Intensity</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
2		<b>Kelvin</b>		
	0 - 255	Warm → Cold	Fade	128
	0	2800K		
	64	3200K		
	128	4400K		
	192	5600K		
255	6500K			
3		<b>Hue (Tint)</b>		
	0 - 255	Minus Green → + Green	Fade	128
4		<b>Red</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
5		<b>Green</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
6		<b>Blue</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
7		<b>White</b>		
	0 - 255	Minimum → Maximum Intensity	Fade	0
8	0 - 65535	<b>Q-Fade (msb)</b>	Fade	0
		KH → RGBW		
9		<b>Q-Fade (lsb)</b>		
	KH → RGBW			
10**		<b>Extended Controls</b>		
	0 - 255	* See Control channel table for details	Snap	0

**\*\* Note:** Channel 1 through 9 will repeat for each cell control according to the selected grouping mode

Control parameter is only present when Extended mode is enabled

Control parameter is always last, its position will change according the grouping mode.

For example, in odd/even grouping mode, the control parameter would be on 19

Extended Control Channel	Default	From	To	Description
<b>Function Name</b>				
No Function		0	2	
Reserved		3	40	Reserved for future feature
Fan Speed Off (if possible)		41	42	Fan will never start, fixture output can be reduced or limited
Fan Speed Low		43	44	Slow fan speed (fixture output can be reduced or limited)
Fixed fan speed = full		45	46	Maximum speed on fan
Fixed fan speed = full, regulated light output intensity	X	47	48	Maximum speed on fan but only when needed
Reserved		49	70	Reserved for future feature
PWM 750		71	72	Set PMW rate
PWM 1500		73	74	Set PMW rate
PWM 3000		75	76	Set PMW rate
PWM 6000	X	77	78	Set PMW rate
PWM 12000		79	80	Set PMW rate
PWM 24000		81	82	Set PMW rate
Reserved		83	150	Reserved for future feature
DMX Lost default Fixture stay to the last state	X	151	152	
DMX Lost default Fixture goes black		153	154	
Reserved		155	156	Reserved for future feature
DMX Lost default fixture to selected look		157	158	
Reserved		159	248	Reserved for future feature
No Function		249	255	

## 10. Further Information

Please refer to the Chroma-Q Studio Force II +™ manual for more detailed information. A copy of the manual can be found at the Chroma-Q website – [www.chroma-q.com/support/downloads.asp](http://www.chroma-q.com/support/downloads.asp)

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The Chroma-Q® Studio Force II +™ has been designed specifically for the lighting industry. Regular maintenance should be performed to ensure that the products perform well in the entertainment environment.

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