DMX ControlStudio Color may be controlled by either by 8- or 16-bit DMX controllers. Use the following table to control Studio Color functions.

DMX Control

		DMX Control		
Chan.	Function	Notes	DMX	Fader %
1	Pan MSB	coarse positioning, 8 bit;8-bit controllers use only high byte	0-255	0-100%
2	Pan LSB	fine positioning	0-255	0-100%
3	Tilt MSB	coarse positioning, 8 bit;8-bit controllers use only high byte	0-255	0-100%
4	Tilt LSB	fine positioning	0-255	0-100%
5	Color functions	default-color wheel continuous F1-allows the color mixing wheels to make two complete rotations F2-locks all motors to MSpeed F3-forw. color spins/color mix sequences F4-revs. color spins/color mix random F5-color wheel color lock and quick path		
		default F3 F4 F5 F1 F1 and F3 F1 and F4 F1 and F5 F2 F2 and F3 F2 and F4 F2 and F5 F1 and F2 F1, F2, and F4 F1, F2, and F4 F1, F2, and F4	0 16 32 48 64 80 96 112 128 144 160 176 192 208 224 240	0% 8% 14% 20% 26% 33% 39% 45% 51% 58% 64% 70% 76% 83% 89%

DMX Control

pos 1 - CTO	Chan.	Function	Notes	DMX	Fader %
Dos 0 - open	6				
pos 1 - CTO 44 17% pos 2 - pink 86 34% pos 3 - magenta 128 50% pos 4 - red 170 66% pos 5 - aqua 213 83% F3- variable forward spin cloop sequences spin stop 0-3 0-1% spin forward slowest 227 48% color seq. fastest 225 100% F4- variable reverse spin/color random spin reverse slowest 4 2% spin reverse slowest 255 100% F5- color random slowest 255 100% F5- color lock and quickest path pos 0 - open 0-43 0-17% pos 2 - pink 86-127 34-50% pos 3 - magenta 128-169 51-66% pos 4 - red 170-212 67-83% pos 5 - aqua 213-255 84-100% 7 Cyan mix red subtractive cyan out 255 100% 8 Magenta mix magenta in 0 0% yellow mix 0 0% 9 Yellow mix blue subtractive yellow in 0 0%		wheel		- 1	
pos 2 - pink pos 3 - magenta 128 50% pos 4 - red pos 5 - aqua 170 66% 83% F3- variable forward spin/color sequences spin stop spin forward slowest spin forward fastest 127 48% color seq. slowest 128 50% color seq. slowest 128 50% color seq. fastest 255 100% F4- variable reverse spin/color random spin stop spin reverse fastest 127 48% color random slowest color random slowest 128 50% color random slowest 128 50% color random fastest 255 100% F5- color lock and quickest path pos 0 - open pos 1 - CTO 44.85 18.33% pos 2 - pink 86-127 34-50% pos 2 - magenta 128-169 51-66% pos 5 - aqua 213-255 84-1009 7 Cyan mix red subtractive cyan in cyan out 255 100% 8 Magenta mix green subtractive magenta out 255 100% 9 Yellow mix blue subtractive mix yellow in 0 0%			pos 0 - open	0 & 255	0 & 100%
pos 3 - magenta 128 50% 66% pos 5 - aqua 213 83% F3 - variable forward spin/color sequences spin stop spin forward slowest spin forward fastest 127 48% color seq. slowest 128 50% color seq. slowest 128 50% color seq. fastest 255 100% F4 - variable reverse spin/color random spin stop spin reverse fastest 127 48% color random spin stop spin reverse fastest 127 48% color random slowest color random slowest color random slowest color random fastest 255 100% F5 - color lock and quickest path pos 0 - open pos 1 - CTO 44-85 18-33% pos 2 - pink 86-127 34-50% pos 3 - magenta 128-169 51-66% pos 4 - red 170-212 67-83% pos 5 - aqua 213-255 84-100% 7 Cyan mix red subtractive cyan in 0 0% cyan out 255 100% 8 Magenta green subtractive magenta out 255 100%				AND DESCRIPTION OF THE PARTY OF	17%
Pos 4 - red 170 66% 213 83% F3- variable forward spin/color sequences spin stop spin forward fastest 127 48% 255 100% F4- variable reverse spin/color random spin stop spin reverse slowest color random spin stop spin reverse slowest color random slowest color random slowest color random slowest color random fastest 127 48%					
Pos 5 - aqua				A CONTRACTOR OF THE PARTY OF TH	
## F3- variable forward spin/color sequences spin stop spin forward slowest spin forward fastest 127 48% color seq. slowest 255 100% ### F4- variable reverse spin/color random spin stop spin reverse fastest 127 48% color random spin stop spin reverse fastest 127 48% color random slowest color random slowest color random fastest 128 50% color random fastest 255 100% ### F5- color lock and quickest path pos 0 - 0pen pos 1 - CTO 44-85 18-33% pos 2 - pink 86-127 34-50% pos 3 - magenta 128-169 51-66% pos 4 - red 170-212 67-83% pos 5 - aqua 213-255 84-100% #### Cyan mix red subtractive cyan in 0 0 0% cyan out 255 100% ###### Magenta mix green subtractive magenta out 255 100% ##################################					
			pos 5 - aqua	213	83%
Spin stop 0-3 0-1%			F3- variable forward		
spin forward slowest			spin/color sequences		
spin forward fastest color seq. slowest 128 50%			spin stop	0-3	0-1%
Color seq. slowest color seq. fastest 128 100%			spin forward slowest	4	2%
Color seq. fastest 255 100%			spin forward fastest	127	48%
F4- variable reverse spin/color random spin stop spin reverse slowest spin reverse slowest spin reverse fastest color random slowest color random fastest 127 48% 50% 128 50% 128 50% 128 128 100% 128 128 128 100% 128 128 128 129 100% 128 129 128 129 128 129 129 129 129 129 129 129 129 129 129			color seq. slowest	128	50%
			color seq. fastest	255	100%
Spin stop 0-3 0-1%	1		F4- variable reverse		
Spin reverse slowest spin reverse fastest 127 48% color random slowest color random slowest color random fastest 255 100% F5- color lock and quickest path pos 0 - open pos 1 - CTO 44-85 18-33% pos 2 - pink 86-127 34-50% pos 2 - pink pos 3 - magenta 128-169 51-66% pos 4 - red 170-212 67-83% pos 5 - aqua 213-255 84-1009 Cyan mix cyan in cyan out 255 100% S Magenta mix green subtractive magenta in magenta out 255 100% S Magenta mix blue subtractive mix yellow in 0 0% 0% 0% 0% 0% 0% 0% 0			spin/color random		
Spin reverse fastest color random slowest color random slowest color random slowest color random fastest 128			spin stop	0-3	0-1%
Color random slowest color random fastest 128			spin reverse slowest	4	2%
Color random fastest 255 100%			spin reverse fastest	127	48%
## F5- color lock and quickest path pos 0 - open pos 1 - CTO pos 2 - pink pos 3 - magenta pos 4 - red pos 4 - red pos 5 - aqua pos 5 - aqua Topos 2 - pink pos 3 - magenta pos 4 - red pos 5 - aqua Topos 2 - pink pos 3 - magenta pos 5 - aqua Topos 2 - pink pos 4 - red pos 5 - aqua Topos 2 - pink pos 4 - red pos 5 - aqua Topos 2 - pink pos 6 - 2 - 2 - 2 - 2 - 3 - 3 - 5 - 66% pos 6 - 2 - 2 - 2 - 2 - 3 - 67-83% pos 5 - aqua Topos 2 - 2 - 2 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -			color random slowest	128	50%
Quickest path Do 43 O-17% Pos 0 - open Pos 1 - CTO Pos 1 - CTO Pos 2 - pink Ro-127 Ro-128-169 Ro-128-1			color random fastest	255	100%
Pos 0 - open			F5- color lock and		
pos 1 - CTO			quickest path	100	
pos 2 - pink 86-127 128-169 51-66% 170-212 67-83% 84-100% 7 Cyan mix red subtractive cyan in cyan out 255 100% 8 Magenta mix magenta out 255 100% 9 Yellow mix blue subtractive mix vellow in 0 0% 0%			pos 0 - open	0-43	0-17%
Pos 3 - magenta 128-169 51-66% pos 4 - red pos 5 - aqua 213-255 84-100% 7			pos 1 - CTO	44-85	18-33%
pos 4 - red 170-212 67-83% pos 5 - aqua 213-255 84-1009 7 Cyan mix red subtractive cyan in 0 0% cyan out 255 100% 8 Magenta green subtractive magenta in 0 0% mix magenta out 255 100% 9 Yellow blue subtractive mix yellow in 0 0%			pos 2 - pink	86-127	34-50%
Pos 5 - aqua 213-255 84-100%				128-169	51-66%
7 Cyan mix red subtractive cyan in 0 0% 0% 255 100% 8 Magenta green subtractive magenta in 0 0% 100% 9 Yellow blue subtractive mix yellow in 0 0%				170-212	67-83%
Cyan in 0 0%			pos 5 - aqua	213-255	84-100%
Cyan in 0 0%	7	Cyan mix	red subtractive		
Cyan out 255 100%		- J		0	0%
mix magenta in 0 0% 100%					
mix magenta in 0 0% 100% 9 Yellow mix yellow in 0 0%					
9 Yellow blue subtractive with yellow in 0 0%	8				
9 Yellow blue subtractive mix yellow in 0 0%	1	mix			
mix yellow in 0 0%			magenta out	255	100%
mix yellow in 0 0%	9	Yellow	blue subtractive		
				0	0%
l vellow out 255 100%			yellow out	255	100%

DMX Control

Chan.	Function	Notes	DMX	Fader %
10	Lens wheel	Full rotation, contin- uously variable		
		open wide angle filter narrow horizontal	0 & 255 64	0 & 100% 25%
		shaping center axis wide vertical shap-	128	50%
		ing center axis	192	75%
11	Frost wheel	full rotation, continu- ously variable		
		open frost	0 & 255 64	0 & 100% 25%
		narrow vertical shap- ing center axis wide horizontal shap-	128	50%
		ing center axis	192	75%
12	Shutter	closed strobe slow	0-7 8	0-2%
		strobe slow strobe fast random strobe-low	127	49%
		saturation random strobe-high	128	50%
		saturation open	247 248-255	96% 97-100%
13	Dim			
13	Dim	closed open	0 255	0% 100%
14	MSpeed	movement speed		
		controller cross-fade slowest	0-3	0-1% 2%
		fastest	255	100%
15	Control ¹	safe	0 .	0%
		home shutdown ²	64 128	25% 50%
16	Check- sum	set to default value	00	0%

Note: the shutter must be closed and the value sent for 0.5 seconds ²Note: available only on the 575-S.

Automated Wash Luminaire Quick Reference Card

Power Requirements

The following items must be used to provide power to Studio Color: 12 AWG stranded THHN or equivalent if hard wired

· Branch Circuit Protection (circuit breaker)

20 A, high-surge thermal breaker (GE THOB, THOL, or equivalent)

	575-S	575-M	
Voltage	Number of Fixtures per 20 A Breaker		
110		n/a	
208	. 5	3	
230	6	. 4	

Note: do not use magnetic type circuit breakers:

Electrical Specifications 575-S

100-230 V.A.C.1 Rated voltage:

Rated frequency: 50/60 Hz 7.0 A @ 100 V/60 Hz. Rated current: 3.0 A @230 V/50 Hz

700 W max

575-M Rated voltage: 208/230 V.A.C.1 50/60 Hz Rated frequency:

3.2 A @208 V/60 Hz. 3.0 A @230 V/50 Hz

700 W max Rated power:

¹Note: fixtures can operate with international 200, 240 and 250 V.A.C. supplies, 575-M fixtures must be re-tapped for some voltages. To retap 575-M fixtures, contact High End Systems Service.

Communication

Rated power:

Rated current:

Protocol: **USITT DMX-512** Maximum load: 32 fixtures per DMX link Required channels: 16

Termination: 120 ohm

Truss Mounting

To mount the fixture on a truss, you will need the following equipment:

· (2) Safety cables

. (2) Cheeseborough clamps (recommended) or other mounting hard-

Complete the following procedure to mount the fixture to a truss: 1. Lay the fixture on its side and attach the mounting hardware to the center holes on the base. Refer to Figure 1.



Figure 1. Attaching Mounting Hardware

2 Install the fixture on the truss

3. Loop the safety cables through an outer hole on the base of the unit. around the handle, and out the other outer hole. Refer to Figure 2.



Figure 2. Safety Cable Installation

Setting the Starting Channel by DMX Channel or Fixture Number

1. Hold <MENU> until the display changes to Fd dR.

2. Using the up and down buttons, scroll down to the 5 E T field and press <ENTER>.

3. Using the up and down buttons, scroll down to the [HNL field and press <ENTER>.

4. Using the up and down buttons, select either F d d R (fixture number) or d M × (DMX channel) and press <ENTER>.

Setting the Fixture's Starting Channel

1. Hold <MENU> until the display changes to F d d R. Press <ENTER> to edit the address field.

2. Using the up and down buttons, set a starting channel. The display will flash when the value is different from the stored value.

3.Press <ENTER> to store the appropriate channel. The display will stop

Note: if <ENTER> is not pressed, the unit will not store the channel.

Setting Display Output

1. Hold <MENU> until the display changes to F d d R

2. Using the up and down buttons, scroll down to the SET field and press <ENTER>.

3. Using the up and down buttons, scroll down to the d 5 F L field and press <ENTER>.

d I M and press < ENTER>.

Cross-Loading Fixtures

1.Disconnect the data cable between controller and the first fixture.

2.Hold <MENU> until the display changes to FI & R.

3. Using the up and down buttons, scroll down to the M D d E field and press <ENTER>.

4. Using the up and down buttons, scroll down to the X L d field and press <ENTER>. The fixture will cross-load its software version to all connected fixtures on the link.

Viewing Lamp Hourst

1.Hold <MENU> until the display changes to F d d R 2. Using the up and down buttons, scroll down to the INF I field and press <ENTER>. The display will indicate L / HR. 3.Press <ENTER> to enter the field and display the lamp hours.

Resetting Lamp Hours+

1. Hold <MENU> until the display changes to Ad R.

2. Using the up and down buttons, scroll down to the INF I field and press <ENTER>.

3. Using the up and down buttons, scroll down to the L / R 5 field and hold down <ENTER> until the lamp hours reset to [[[] []

Note: resetting lamp hours automatically resets lamp strikes.

Viewing Fixture Hours

1. Hold <MENU> until the display changes to FI d d R.

2. Using the up and down buttons, scroll down to the INF [] field and press <ENTER>.

3. Using the up and down buttons, scroll down to the F / H R field and press <ENTER>. The fixture will display the fixture hours.

Resetting Fixture Hours

1. Hold <MENU> until the display changes to F d d R.

2. Using the up and down buttons, scroll down to the INF [] field and press <ENTER>.

3. Using the up and down buttons, scroll down to the F / R = fieldand hold down <ENTER> until the fixture hours reset to [[[[[]]

Performing Self Tests

1. Hold <MENU> until the display changes to F d d R

2. Using the up and down buttons, scroll down to the TEST field and press <ENTER>.

3. Using the up and down buttons, scroll to the desired test and press <ENTER>. The fixture will perform the desired test.

4. To exit the test in progress, press <MENU>.

Viewing DMX Data By Channel Number 1. Hold <MENU> until the display changes to F d d R.

2. Using the up and down buttons, scroll down to the INF [] field and press the <ENTER>.

3. Using the up and down buttons, scroll down to the d M X field and press <ENTER>.

4. Using the up and down buttons, scroll down to the d FT F field and press < ENTER>.

5. Using the up and down buttons, scroll to the desired channel and press <ENTER> to view the DMX value.

Inverting or Swapping Pan and Tilt

1.Hold <MENU> until the display changes to H d d R.

2. Using the up and down buttons, scroll down to the 5 E T field and press <ENTER>.

3. Using the up and down buttons, scroll to P/IN (pan invert), I/IN (tilt invert), or $S \bowtie PP$ (swap pan and tilt) and press <FNTFR>

†Available only on the 575-S.

P/N 60600082 Rev C