DMX Control

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

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	0	0%
		F3	16	8%
		F4	32	14%
		F5	48	20%
		F1	64	26%
		F1 and F3	80	33%
		F1 and F4	96	39%
		F1 and F5	112	45%
		F2	128	51%
		F2 and F3	144	58%
		F2 and F4	160	64%
		F2 and F5	176	70%
		F1 and F2	192	76%
		F1, F2, and F3	208	83%
		F1, F2, and F4	224	89%
		F1, F2, and F5	240	95%

DMX Control

Chan.	Function	Notes	DMX	Fader %
6	Color wheel	*default- continuously variable*		
		pos 0 - open	0 & 255	0 & 100%
		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/color sequences		
		spin stop	0-3	0-1%
		spin forward slowest	4	2%
		spin forward fastest	127	48%
		color seq. slowest	128	50%
		color seq. fastest	255	100%
		F4- variable reverse spin/color random		
		spin stop	0-3	0-1%
		spin reverse slowest	4	2%
		spin reverse fastest	127	48%
		color random slowest	128	50%
		color random fastest	255	100%
		F5- color lock and quickest path		
		pos 0 - open	0-43	0-17%
		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 mix	*green subtractive*		
		magenta in	0	0%
		magenta out	255	100%
9	Yellow mix	*blue subtractive*		
		yellow in	0	0%
		yellow out	255	100%

DMX Control

Chan.	Function	Notes	DMX	Fader %
10	Lens wheel	*Full rotation, continuously variable*		
		open	0 & 255	0 & 100%
		wide angle filter	64	25%
		narrow horizontal shaping center axis	128	50%
		wide vertical shaping center axis	192	75%
11	Frost wheel	*full rotation, continuously variable*		
		open	0 & 255	0 & 100%
		frost	64	25%
		narrow vertical shaping center axis	128	50%
		wide horizontal shaping center axis	192	75%
12	Shutter	closed	0-7	0-2%
		strobe slow	8	3%
		strobe fast	127	49%
		random strobe-low saturation	128	50%
		random strobe-high saturation	247	96%
		open	248-255	97-100%
13	Dim	closed	0	0%
		open	255	100%
14	MSpeed	*movement speed*		
		controller cross-fade	0-3	0-1%
		slowest	4	2%
		fastest	255	100%
15	Control[1]	safe	0	0%
		home	64	25%
		shutdown[2]	128	50%
16	Check-sum	set to default value (00)	00	0%

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

STUDIO COLOR®

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 THQB, THQL, or equivalent)

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

Note: *do not use magnetic type circuit breakers.*

Electrical Specifications

575-S

Rated voltage:	100-230 V.A.C.[1]
Rated frequency:	50/60 Hz
Rated current:	7.0 A @100 V/60 Hz, 3.0 A @230 V/50 Hz
Rated power:	700 W max

575-M

Rated voltage:	208/230 V.A.C.[1]
Rated frequency:	50/60 Hz
Rated current:	3.2 A @208 V/60 Hz, 3.0 A @230 V/50 Hz
Rated power:	700 W max

[1]Note: *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

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 hardware

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.

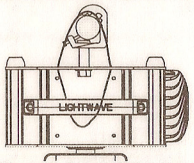

Figure 2. Safety Cable Installation

Setting the Starting Channel by DMX Channel or Fixture Number

1.Hold <MENU> until the display changes to ADDR.

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 CHNL field and press <ENTER>.

4.Using the up and down buttons, select either ADDR (fixture number) or DMX (DMX channel) and press <ENTER>.

Setting the Fixture's Starting Channel

1.Hold <MENU> until the display changes to ADDR. 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 flashing.

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

Setting Display Output

1.Hold <MENU> until the display changes to ADDR.

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 DSPL field and press <ENTER>.

4.Using the up and down buttons, select either ON, OFF, or DIM 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 ADDR.

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

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

Viewing Lamp Hours†

1.Hold <MENU> until the display changes to ADDR.

2.Using the up and down buttons, scroll down to the INFO 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 ADDR.

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

3.Using the up and down buttons, scroll down tc the L/RS field and hold down <ENTER> until the lamp hours reset to 0000.

Note: *resetting lamp hours automatically resets lamp strikes.*

Viewing Fixture Hours

1.Hold <MENU> until the display changes to ADDR.

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

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

Resetting Fixture Hours

1.Hold <MENU> until the display changes to ADDR.

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

3.Using the up and down buttons, scroll down to the F/RS field and hold down <ENTER> until the fixture hours reset to 0000.

Performing Self Tests

1.Hold <MENU> until the display changes to ADDR.

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 ADDR.

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

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

4.Using the up and down buttons, scroll down to the DATA 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 ADDR.

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

3.Using the up and down buttons, scroll to P/IN (pan invert), T/IN (tilt invert), or SWAP (swap pan and tilt) and press <ENTER>.

†Available only on the 575-S.

P/N 60600082 Rev. C