

COLLIDER FC

USER MANUAL

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SAFETY



WARNING! Before carrying out any operations with the unit, carefully read this instruction manual and keep it with care for future reference. It contains important information about the installation, user and maintenance of the unit.



General instruction

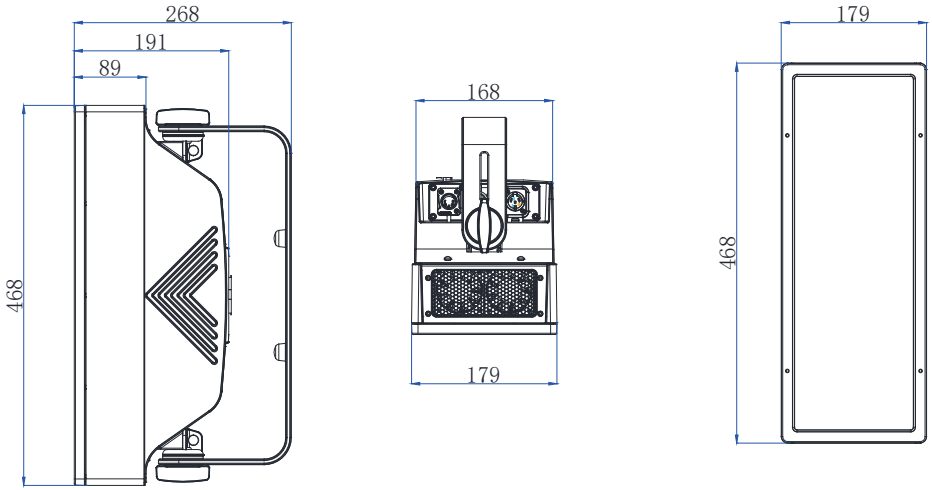
- The products referred to in this manual conform to the European Community Directives and are therefore marked with CE.
- The unit is supplied with hazardous network voltage (230V~). Leave serving to skilled personnel only. Never make any modifications on the unit not described in this instruction manual, otherwise you will risk an electric shock.
- Connection must be made to power supply system fitted with efficient earthing (Class I appliance according to standard EN60598-1). It is moreover, recommended to protect the supply lines of the units from indirect contact and/or shorting to earth by using appropriately sized residual current devices.
- The connection to the main network of electric distribution must be carried out by a qualified electrical installer. Check that the main frequency and voltage correspond to those for which the unit is designed as given on the electrical data label.
- This unit is not for home use, only professional applications.
- Never use the fixture under the following conditions:
 - in places subject to vibrations or bumps;
 - in places with a temperature of over 40 °C.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Do not dismantle or modify the fixture.
- All work must always be carried out by qualified technical personnel. Contact the nearest sales point for an inspection or contact the manufacturer directly.
- If the unit is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.



Warnings and installation precautions

- If this device will be operated in any way different to the one described in this manual, it may suffer damage and the guarantee becomes void. Furthermore, any operation may lead to dangers like short circuit, burns, electric shock, etc.
- Before starting any maintenance work or cleaning the fixture, cut off power from the main supply.
- Always additionally secure the fixture with the safety rope. When carrying out any work, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture's being used.
- Install the fixture in a well ventilated place.
- Keep any inflammable materials at a safe distance from the fixture.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- The lamp (LED) shall be changed if it has become damaged or thermally deformed.
- Never look directly at the light beam. Please note that fast changes in lighting, e.g. flashing light, may trigger epileptic seizures in photosensitive persons or persons with epilepsy.
- Do not touch the product's housing when operating because it may be very hot.

TECHNICAL DRAWING



DESCRIPTION

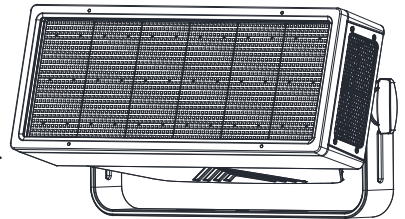
The most powerful White pixel-mappable LED strobe ever built.

Harness the stunning kinetic energy of accelerated particles of pure blinding light.

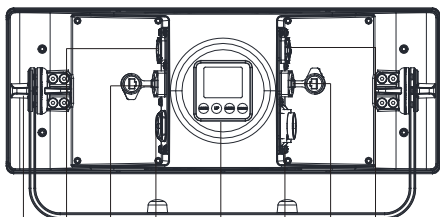
Onboard macros enable quick programming of stunning effects.

IP65-rated tour-grade construction.

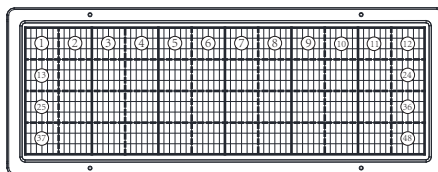
DMX and Artnet control.



INTRODUCTION



1 2 3 4 5 6 7 8



48 individually controllable segments for dynamic effects

- 1. HANGING BRACKET KNOB
- 2. DMX IN
- 3. ART-NET IN
- 4. POWER IN
- 5. DISPLAY
- 6. POWER OUT
- 7. ART-NET OUT
- 8. DMX OUT

Display Function Navigation

MODE	ILLUSTRATION	DESCRIPTION	EFFECT
MENU	MENU OPTION	ENTER THE MENU	MENU OPERATION
UP	UP	SCROLL UP	INCREASE THE NUMERIC VALUE
DOWN	DOWN	SCROLL DOWN	DECREASE THE NUMERIC VALUE
ENTER	CONFIRM	CONFIRM	SAVE THE FUCTION

TECHNICAL SPECIFICATION

Light Source:1728 RGBW LED

Beam Angle:98°

Field Angle:156°

Output: 5m@1282 lx

Lumen: 180000 lm

Mains:100-240V 50/60HZ

Consumption: 1500W(peak)/590W(full on)

Strobe: 0-30HZ

Dimming: 4 selectable dimming curves

Protocol: DMX512, RDM,Artnet

DMX Channels: BASIC, PIXELS, ADVANCED

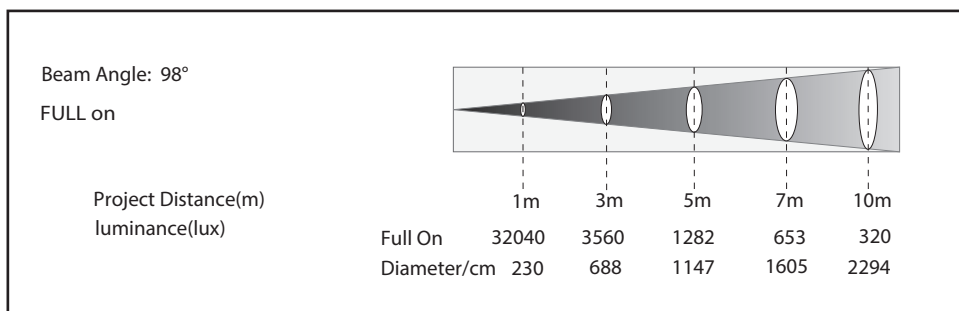
Power Connection: Powercon In/Out, up to 2 units

Ingress rating: IP65

Dimensions : 468x179x268mm

Weight:15Kg

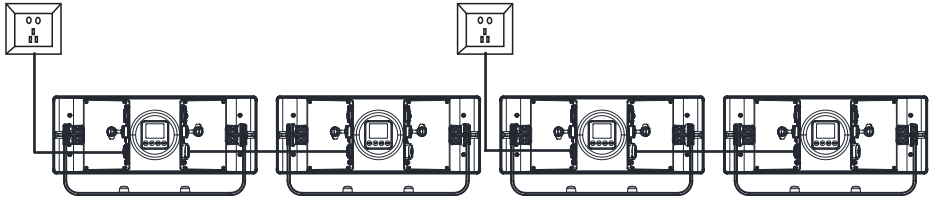
PHOTOMETRICS



Menu

Main Menu	Menu level 2	Menu level 3	Menu level ...			Remark	
1	CONNECT	DMX Address	1-512			Default: 1	
		DMX Mode	BASIC	STATIC			Default: BASIC RGBW STROBE
				STROBE	R=0-255	TO CHOOSE THE COLOR OF THE STROBE, NOT SELECTABLE WITH DMX	
					G=0-255		
					B=0-255		
					W=0-255		
		PIXELS					
		RGBW STROBE					
		PIXELS	1PX			Default: 48PX	
			2PX				
			3PX				
			12PX				
			48PX				
		ADVANCED	ADVANCED 1			Default: ADVANCED 3	
			ADVANCED 2				
ADVANCED 3							
ADVANCED 4							
Ethernet	Protocol	Only Art-Net			Default: Only Art-net		
		ArtNet+DMX (PIXELS(1/2/4/8/16/64PX) /ADVANCE(2/4))					
	Subnet	0-15			Default: 0		
	Universe	0-15			Default: 0		
	Start Channel	1-512			Default: 1		
	IP Address	2/10.***.***.***					
	Ethernet To DMX	NO Yes			Default: No		
RDM ID	030P*****						
2	SETUP	Temperature unit	°C			Default: °C	
			°F				
		Screen	Back Light	On			Default: 10S
				10S			
				20S			
				30S			
		Flip Display	No			Default: No	
			Yes				
		Key Lock	No			Default: No	
			Yes				
		Fixture	White Balance	Manual	Red	<125-255>	Default: Off, RGBW
					Green	<125-255>	
					Blue	<125-255>	
					White	<125-255>	
					Off		
Dimmer Mode	Off			Default: Off			
	Dimmer 1						
	Dimmer 2						
Fan mode	Auto			Default: Yes			
	High						
3	ADVANCED	Factory Reload	No Yes				
		Mapping Rotation	No Yes			Default: No	
4	INFORMATION	Fixture Time	0-9999			Default: 0	
		Temperature	58 °C				
		Fans Speed	***%				
5	STAND ALONE	Software Version	DISP-V1.0 CTR1-NET-V1.0 CTR2-LED-V1.0				
		Master/Slave	Master Slave			Default: Slave	
5	STAND ALONE	Sequence	Master/Slave	Speed	1-100	Default: Show 23 Speed: 100 Foreground = R Background = Black	
				Foreground	Black		
					R		
					G		
					B		
					W		
					GB		
					RB		
					RG		
					RGB		
					RW		
					GW		
					BW		
					RGW		
					RBW		
GBW							
RGBW							
Background	Black						
	R						
	G						

POWER CONNECTION



Power In

Using POWER CON In/Out
Power cable connected in series
Attention: due to the power rating ,
one 1.5mm² power cable can connect 2 units maximum



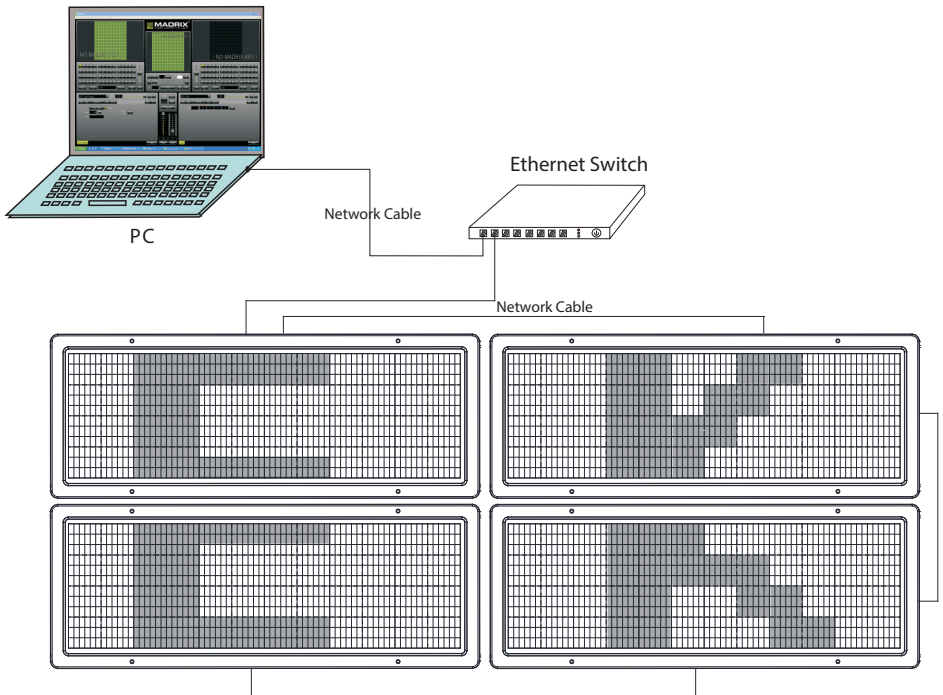
Power out



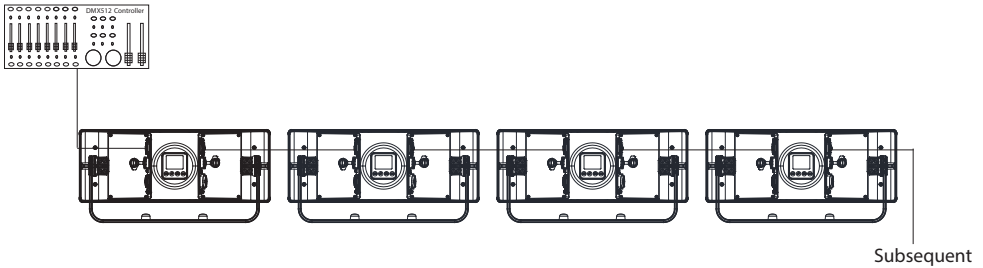
Warning

Do not connect more than 2 units in series with one power cable.
Do not use damaged power cables
Turn off the power when the units are not in use.

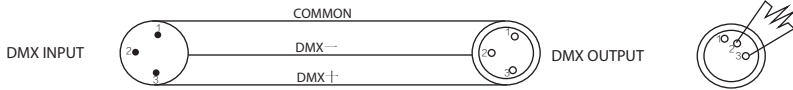
ETHERNET CONNECTION



DMX CONNECTION



DMX512 Controller



Depending on the length of the DMX cable run, or other factors, it may be advisable to install a terminator at the last fixture in the run.

The illustration below shows the correct placement of a 120Ω 0.25W resistor in a terminator, as well as the standard DMX signal pin-outs.

Relation between DMX and Address

MODE	ALLOCATION	DMX ADDRESS 1ST FIXTURE	DMX ADDRESS 2ND FIXTURE	DMX ADDRESS 3RD FIXTURE
ADVANCED 1	001 -015	001	016	031
ADVANCED 2	001 -203	001	204	407
ADVANCED 3	001 -027	001	028	055
ADVANCED 4	001 -215	001	216	433

Follow above method for subsequent fixture, calculating starting address as indicated.

Channel

ADVANCED - ADVANCED 1				
Channel	Function	Value	Percent/Setting	Remark
1	FLASH DIMMER	000-255	Strobe dimmer	
2	FLASH STROBE	000-030	No flash/Closed	
		031-100	Strobe slow to fast	
		101-130	Open	
		131-200	Random strobe slow to fast	
		201-255	Open	
3	FLASH RED	000-255	Red intensity	
4	FLASH GREEN	000-255	Green intensity	
5	FLASH BLUE	000-255	Blue intensity	
6	FLASH WHITE	000-255	White intensity	
7	BG DIMMER	000-255	Strobe Dimmer	
8	BG STROBE	000-030	No flash/Closed	
		031-100	Strobe slow to fast	
		101-130	Open	
		131-200	Random strobe slow to fast	
		201-255	Open	
9	BG RED	000-255	Red intensity	
10	BG GREEN	000-255	Green intensity	
11	BG BLUE	000-255	Blue intensity	
12	BG WHITE	000-255	White intensity	
13	AUTO FX	000-010	No Function	
		011-015	FX 1	
		016-020	FX 2	
		021-025	FX 3	
		026-030	FX 4	
		031-035	FX 5	
		036-040	FX 6	
		041-045	FX 7	
		046-050	FX 8	
		051-055	FX 9	
		056-060	FX 10	
		061-065	FX 11	
		066-070	FX 12	
		071-075	FX 13	
		076-080	FX 14	
		081-085	FX 15	
		086-090	FX 16	
		091-095	FX 17	
		096-100	FX 18	
		101-105	FX 19	
		106-110	FX 20	
		111-115	FX 21	
		116-120	FX 22	
121-125	FX 23			
126-205	RESERVED(TBD)			
206-255	Random pixel(with density)	From 1 to 10 pixel, 1 more pixel every 5 steps		
14	FX SPEED	000-050	Static indexing	
		051-255	From slow to fast	
15	DIMMER MODE	000-051	From MENU	
		052-101	Mode OFF	
		102-152	Mode 1	
		153-203	Mode 2	
		204-255	Mode 3	

Channel

ADVANCED - ADVANCED 2						
DMX	Art-net+DMX		Function	Value	Percent/Setting	Remark
Artnet	Artnet	DMX				
1	/	1	FLASH DIMMER	000-255	0-100%	
2	/	2	FLASH STROBE	000-030	No flash/Closed	
				031-100	Strobe slow to fast	
				101-130	Open	
				131-200	Random strobe slow to fast	
				201-255	Open	
3	/	3	BG DIMMER	000-255	Strobe Dimmer	
4	/	4	BG STROBE	000-030	No flash/Closed	
				031-100	Strobe slow to fast	
				101-130	Open	
				131-200	Random strobe slow to fast	
				201-255	Open	
5	/	5	BG RED	000-255	Red intensity	
6	/	6	BG GREEN	000-255	Green intensity	
7	/	7	BG BLUE	000-255	Blue intensity	
8	/	8	BG WHITE	000-255	White intensity	
9	/	9	AUTO FX	000-010	No Function	
				011-015	FX 1	
				016-020	FX 2	
				021-025	FX 3	
				026-030	FX 4	
				031-035	FX 5	
				036-040	FX 6	
				041-045	FX 7	
				046-050	FX 8	
				051-055	FX 9	
				056-060	FX 10	
				061-065	FX 11	
				066-070	FX 12	
				071-075	FX 13	
				076-080	FX 14	
				081-085	FX 15	
				086-090	FX 16	
				091-095	FX 17	
				096-100	FX 18	
				101-105	FX 19	
106-110	FX 20					
111-115	FX 21					
116-120	FX 22					
121-125	FX 23					
126-205	RESERVED(TBD)					
206-255	Random pixel(with density)	From 1 to 10 pixel, 1 more pixel every 5 steps				
10	/	10	FX SPEED	000-050	Static indexing	
				051-255	From slow to fast	
11	/	11	DIMMER MODE	000-051	From MENU	
				052-101	Mode OFF	
				102-152	Mode 1	
				153-203	Mode 2	
				204-255	Mode 3	
12	1	/	PIXEL 1 RED	000-255	Red intensity	

Channel

13	2	/	PIXEL 1 GREEN	000-255	Green intensity	
14	3	/	PIXEL 1 BLUE	000-255	Blue intensity	
15	4	/	PIXEL 1 WHITE	000-255	White intensity	
...	...	/	
200	189	/	PIXEL 48 RED	000-255	Red intensity	
201	190	/	PIXEL 48 GREEN	000-255	Green intensity	
202	191	/	PIXEL 48 BLUE	000-255	Blue intensity	
203	192	/	PIXEL 48 WHITE	000-255	White intensity	

ADVANCED - ADVANCED 3

Channel	BASIC FUNCTION	FUNCTION WITH L2 FX	Value	Setting	WITH FX	Remark
1	FLASH DIMMER	LAYER2 DIMMER	000-255	0-100%	Layer 2 dimmer	
2	FLASH STROBE	LAYER2 STROBE	000-030	No flash/Closed	- Same -	No output - Single flash with ch 1
			031-100	Strobe slow to fast	- Same -	
			101-130	Open	- Same -	
			131-200	Random strobe slow to fast	- Same -	
			201-255	Open	- Same -	
3	FLASH RED	LAYER2 RED	000-255	Red intensity	Layer 2 Red	
4	FLASH GREEN	LAYER2 GREEN	000-255	Green intensity	Layer 2 Green	
5	FLASH BLUE	LAYER2 BLUE	000-255	Blue intensity	Layer 2 Blue	
6	FLASH WHITE	LAYER2 WHITE	000-255	White intensity	Layer 2 White	
7	BG DIMMER		000-255	Strobe Dimmer		
8	BG STROBE		000-030	No flash/Closed		
			031-100	Strobe slow to fast		
			101-130	Open		
			131-200	Random strobe slow to fast		
			201-255	Open		
9	BG RED		000-255	Red intensity		
10	BG GREEN		000-255	Green intensity		
11	BG BLUE		000-255	Blue intensity		
12	BG WHITE		000-255	White intensity		
13	LAYER1 DIMMER		000-255	Strobe Dimmer		
14	LAYER1 STROBE		000-030	No flash/Closed		
			031-100	Strobe slow to fast		
			101-130	Open		
			131-200	Random strobe slow to fast		
			201-255	Open		
15	LAYER1 RED		000-255	Red intensity		
16	LAYER1 GREEN		000-255	Green intensity		
17	LAYER1 BLUE		000-255	Blue intensity		
18	LAYER1 WHITE		000-255	White intensity		
			000-010	No Function		
			011-015	FX 1		
			016-020	FX 2		
			021-025	FX 3		
			026-030	FX 4		
			031-035	FX 5		
			036-040	FX 6		

Channel

19	LAYER1 FX	041-045	FX 7	
		046-050	FX 8	
		051-055	FX 9	
		056-060	FX 10	
		061-065	FX 11	
		066-070	FX 12	
		071-075	FX 13	
		076-080	FX 14	
		081-085	FX 15	
		086-090	FX 16	
		091-095	FX 17	
		096-100	FX 18	
		101-105	FX 19	
		106-110	FX 20	
		111-115	FX 21	
		116-120	FX 22	
		121-125	FX 23	
	126-205	RESERVED(TBD)		
	206-255	Random pixel(with density)	From 1, to 10 pixel, 1 more pixel every 5 steps	
20	LAYER1 FX SPEED	000-050	Static indexing	
		051-255	From slow to fast	
		000 - 200	Continuous start selection	Choose the step of start
21	LAYER1 FX OFFSET	201 - 255	Random distribution	Enables an internal distribution of the macro between a multitude of lights on a specific DMX line basing on their DMX starting address.
		000-010	No Function	
22	LAYER2 FX (Colors and strobe are controlled by FLASH channels. If no FX is selected, the FLASH channels will work as basic function.)	011-015	FX 1	
		016-020	FX 2	
		021-025	FX 3	
		026-030	FX 4	
		031-035	FX 5	
		036-040	FX 6	
		041-045	FX 7	
		046-050	FX 8	
		051-055	FX 9	
		056-060	FX 10	
		061-065	FX 11	
		066-070	FX 12	
		071-075	FX 13	
		076-080	FX 14	
		081-085	FX 15	
		086-090	FX 16	
		091-095	FX 17	
		096-100	FX 18	
		101-105	FX 19	
		106-110	FX 20	
111-115	FX 21			
116-120	FX 22			
121-125	FX 23			
	126-205	RESERVED(TBD)		
	206-255	Random pixel(with density)	From 1 to 10 pixel, 1 more pixel every 5 steps	
23	LAYER2 FX SPEED	000-050	Static indexing	
		051-255	From slow to fast	

Channel

24	LAYER2 FX OFFSET	000 - 200	Continuous start selection	Choose the step of start
		201 - 255	Random distribution	Enables an internal distribution of the macro between a multitude of lights on a specific DMX line basing on their DMX starting address.
25	EMPTY	-	TBD	
26	EMPTY	-	TBD	
27	DIMMER MODE	000-051	From MENU	
		052-101	Mode OFF	
		102-152	Mode 1	
		153-203	Mode 2	
		204-255	Mode 3	

ADVANCED - ADVANCED 4

Artnet DMX	Artnet+DMX		BASIC Function	WITH L2 FX	Value	Setting	WITH FX	Remark
	Artnet	DMX						
1	/	1	FLASH DIMMER	LAYER2 DIMMER	000-255	0-100%	Layer 2 dimmer	
2	/	2	FLASH STROBE	LAYER2 STROBE	000-030	No flash/Closed	- Same -	
					031-100	Strobe slow to fast	- Same -	
					101-130	Open	- Same -	
					131-200	Random strobe slow to fast	- Same -	
					201-255	Open	- Same -	
3	1		FLASH 1 RED	LAYER2 1 RED	000-255	Red intensity	Layer 2 Red	
4	2		FLASH 1 GREEN	LAYER2 1 GREEN	000-255	Green intensity	Layer 2 Green	
5	3		FLASH 1 BLUE	LAYER2 1 BLUE	000-255	Blue intensity	Layer 2 Blue	
6	4		FLASH 1 WHITE	LAYER2 1 WHITE	000-255	White intensity	Layer 2 White	
..		
191	189		FLASH 48 RED	LAYER2 48 RED	000-255	Red intensity	Layer 2 Red	
192	190		FLASH 48 GREEN	LAYER2 48 GREEN	000-255	Green intensity	Layer 2 Green	
193	191		FLASH 48 BLUE	LAYER2 48 BLUE	000-255	Blue intensity	Layer 2 Blue	
194	192		FLASH 48 WHITE	LAYER2 48 WHITE	000-255	White intensity	Layer 2 White	
195	/	3	BG DIMMER		000-255	Strobe Dimmer		
196	/	4	BG STROBE		000-030	No flash/Closed		
					031-100	Strobe slow to fast		
					101-130	Open		
					131-200	Random strobe slow to fast		
					201-255	Open		
197	/	5	BG RED		000-255	Red intensity		
198	/	6	BG GREEN		000-255	Green intensity		
199	/	7	BG BLUE		000-255	Blue intensity		
200	/	8	BG WHITE		000-255	White intensity		
201	/	9	LAYER1 DIMMER		000-255	Strobe Dimmer		

Channel

202	/	10	LAYER1 STROBE	000-030	No flash/Closed	
				031-100	Strobe slow to fast	
				101-130	Open	
				131-200	Random strobe slow to fast	
				201-255	Open	
203	/	11	LAYER1 RED	000-255	Red intensity	
204	/	12	LAYER1 GREEN	000-255	Green intensity	
205	/	13	LAYER1 BLUE	000-255	Blue intensity	
206	/	14	LAYER1 WHITE	000-255	White intensity	
207	/	15	LAYER1 FX	000-010	No Function	
				011-015	FX 1	
				016-020	FX 2	
				021-025	FX 3	
				026-030	FX 4	
				031-035	FX 5	
				036-040	FX 6	
				041-045	FX 7	
				046-050	FX 8	
				051-055	FX 9	
				056-060	FX 10	
				061-065	FX 11	
				066-070	FX 12	
				071-075	FX 13	
				076-080	FX 14	
				081-085	FX 15	
				086-090	FX 16	
				091-095	FX 17	
				096-100	FX 18	
				101-105	FX 19	
				106-110	FX 20	
				111-115	FX 21	
				116-120	FX 22	
121-125	FX 23					
126-205	RESERVED(TBD)					
206-255	Random pixel(with density)	From 1 to 10 pixel, 1 more pixel every 5 steps				
208	/	16	LAYER1 FX SPEED	000-050	Static indexing	
				051-255	From slow to fast	
209	/	17	LAYER1 FX OFFSET	000-200	Continuous start selection	Choose the step of start
				201-255	Random distribution	Enables an internal distribution of the macro between a multitude of lights on a specific DMX line basing on their DMX starting address.
				000-010	No Function	
				011-015	FX 1	
				016-020	FX 2	
				021-025	FX 3	
				026-030	FX 4	
				031-035	FX 5	
				036-040	FX 6	

Channel

210	/	18		041-045	FX 7	
				046-050	FX 8	
				051-055	FX 9	
				056-060	FX 10	
				061-065	FX 11	
				066-070	FX 12	
				071-075	FX 13	
				076-080	FX 14	
				081-085	FX 15	
				086-090	FX 16	
				091-095	FX 17	
				096-100	FX 18	
				101-105	FX 19	
				106-110	FX 20	
				111-115	FX 21	
				116-120	FX 22	
				121-125	FX 23	
126-205	RESERVED(TBD)					
206-255	Random pixel(with density)	From 1 to 10 pixel, 1 more pixel every 5 steps				
211	/	19	LAYER2 FX SPEED	000-050	Static indexing	
				051-255	From slow to fast	
212	/	20	LAYER2 FX OFFSET	000 -200	Continuous start selection	Choose the step of start
				201 -255	Random distribution	Enables an internal distribution of the macro between a multitude of lights on a specific DMX line basing on their DMX starting address.
213	/	21	EMPTY	-	TBD	
214	/	22	EMPTY	-	TBD	
215	/	23	DIMMER MODE	000-051	From MENU	
				052-101	Mode OFF	
				102-152	Mode 1	
				153-203	Mode 2	
				204-255	Mode 3	

TROUBLE SHOOTING

Problem	Possible Causes	Check list and Remedies
Fixture does not light up	<ul style="list-style-type: none"> • No mains supply • Dimmer fader set to 0 • All color faders set to 0 • Faulty LED • Faulty LED board 	<ul style="list-style-type: none"> • Check the power supply voltage • Increase the value of the dimmer channels • Increase the value of the color channels • Replace the LED board • Replace the LED board
General low light intensity	<ul style="list-style-type: none"> • Dirty lens assembly • Misaligned lens assembly 	<ul style="list-style-type: none"> • Clean the fixture regularly • Install lens assembly properly
Fixture does not power up	<ul style="list-style-type: none"> • No power • Loose or damaged power cord • Faulty internal power supply 	<ul style="list-style-type: none"> • Check for power on power outlet • Check power cord • Replace internal power supply
Fixture does not respond to DMX	<ul style="list-style-type: none"> • Wrong DMX addressing • Damaged DMX cables • Bouncing signals 	<ul style="list-style-type: none"> • Check control panel and unit addressing • Check DMX cables • Install terminator as suggested



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