

ACL 360 MATRIX™

user manual

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DOCUMENT VERSION



Please check www.elationlighting.com for the latest revision/update of this manual.

Date	Document Version	Software Version	DMX Channel Modes	Notes
8/21/15	1	IU01: ≥1.04 2U01: ≥1.04 3U01: ≥1.04 4U01: ≥1.04	17 / 19 / 115	Initial release.

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GENERAL INFORMATION

INTRODUCTION

Congratulations, you have just purchased one of the most innovative and reliable lighting fixtures on the market today! This fixture has been designed to perform reliably for years when the guidelines in this booklet are followed. Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this unit. These instructions contain important information regarding safety during use and maintenance.

UNPACKING

Every fixture has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this unit to your dealer without first contacting customer support at the number listed below. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

BOX CONTENTS

- (2) Omega Brackets
- (1) powerCON Cable
- Manual & Warranty Card

CUSTOMER SUPPORT

Elation Professional® provides a customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.elationlighting.com for any comments or suggestions. For service related issue please contact Elation Professional®.

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WARRANTY REGISTRATION

Please complete and mail in the enclosed warranty card or register online: <http://www.elationlighting.com/Login.aspx> to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Items returned without a R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain a R.A. number by contacting customer support.



IMPORTANT NOTICE!

There are no user serviceable parts inside this unit. Do not attempt any repairs yourself; doing so will void your manufactures warranty. Damages resulting from modifications to this fixture and/or the disregard of safety and general user instructions found in this user manual void the manufactures warranty and are not subject to any warranty claims and/or repairs.

LIMITED WARRANTY

A. Elation Professional® hereby warrants, to the original purchaser, Elation Professional® products to be free of manufacturing defects in material and workmanship for a period of two years (730 days), and Elation Professional® product rechargeable batteries to be free of manufacturing defects in material and workmanship for a period of six months (180 days), from the original date of purchase. This warranty excludes discharge lamps and all product accessories. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Elation Professional® factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Elation Professional® will pay return shipping charges only to a designated point within the United States. If any product is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, Elation Professional® shall have no liability what so ever for loss and/or or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which Elation Professional® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Elation Professional® factory unless prior written authorization was issued to purchaser by Elation Professional®; if the product is damaged because not properly maintained as set forth in the product instructions, guidelines and/or user manual.

D. This is not a service contract, and this warranty does not include any maintenance, cleaning or periodic check-up. During the periods as specified above, Elation Professional® will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Elation Professional® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Elation Professional®. All products covered by this warranty were manufactured after January 1, 1990, and bare identifying marks to that effect.

E. Elation Professional® reserves the right to make changes in design and/or performance improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with the products described above. Except to the extent prohibited by applicable law, all implied warranties made by Elation Professional® in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty periods set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said periods have expired. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Elation Professional® be liable for any loss and/or damage, direct and/or consequential, arising out of the use of, and/or the inability to use, this product.

G. This warranty is the only written warranty applicable to Elation Professional® products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

SAFETY INSTRUCTIONS



This fixture is an extremely sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow the guidelines in this manual. The manufacturer of this device will not accept responsibility for damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual.



This device falls under **PROTECTION CLASS 1**. It's essential this device be grounded properly. Only qualified personnel should perform all electrical connections.



I N D O O R S U S E O N L Y !
DO NOT EXPOSE FIXTURE RAIN AND MOISTURE!



UNPLUG POWER BEFORE SERVICING FIXTURE!
DO NOT PLUG FIXTURE INTO A DIMMER PACK!
NEVER TOUCH FIXTURE DURING OPERATION, AS IT MAY BE HOT!



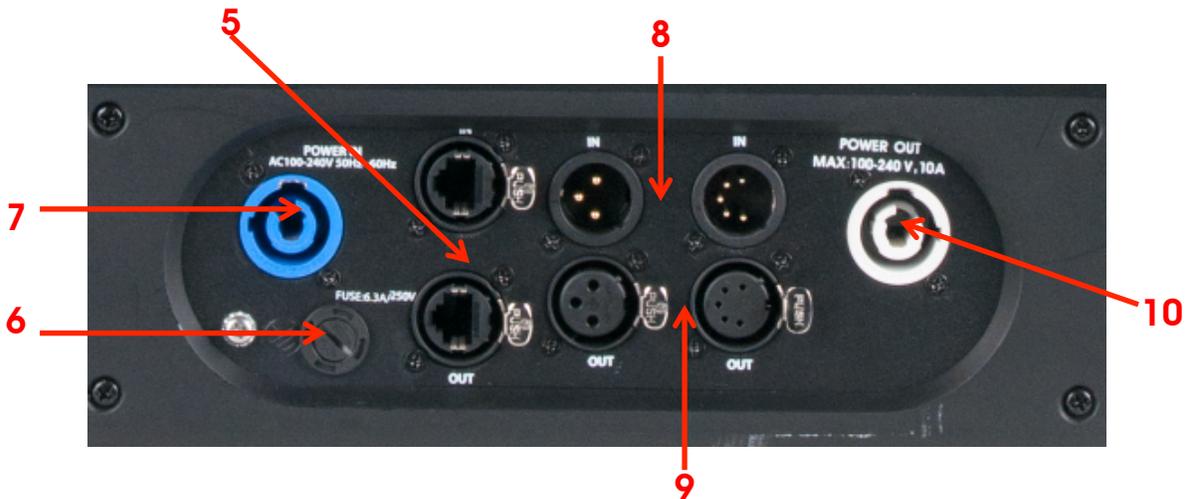
NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE!
SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK!

- For proper operation, follow the **Installation** guidelines described in this manual. Only qualified and certified personnel should perform installation of this fixture and only the original rigging parts (brackets) included with this fixture should be used for installation. Any modifications will void the original manufacturer's warranty and increase the risk of damage and/or personal injury.
- Never look directly into the light source of this fixture to prevent risk of injury to your retina, which may induce blindness. Those suffering from **EPILEPSY** should avoid looking directly into the light source of this unit at all times.
- The fan and air inlets must remain clean and never blocked. Allow approx. 6" (15cm) between this fixture and other devices or a wall for proper cooling.
- Always disconnect from main power source before performing any type of service and/or cleaning procedure. Only handle the power cord by the plug end, never pull out the plug by tugging the wire portion of the cord.
- Do not operate this fixture if the power cord has become frayed, crimped and/or damaged. If the power cord is damaged, replace it immediately with a new one of similar power rating.

GENERAL GUIDELINES

- **NEVER OPEN THIS FIXTURE WHILE IN USE!**
- During the initial operation of this fixture, a light smoke or smell may emit from the interior of the fixture. This is a normal process and is caused by excess paint in the interior of the casing burning off from the heat associated with the lamp and will decrease gradually over time.
- This fixture is a professional lighting effect designed for **INDOOR / DRY LOCATIONS ONLY** on stage, in nightclubs, theatres, etc.
- Please make sure there are **NO FLAMMABLE MATERIALS** close to the fixture while operating, to prevent any fire hazard.
- The fixture must be installed in a location with adequate ventilation, at least 1.5 feet (.5m) from adjacent surfaces. Be sure no air ventilation slots are blocked.
- **DO NOT** attempt installation and/or operation without knowledge how to do so.
- **DO NOT** permit operation by persons who are not qualified to operate this type of fixture. Most damages are the result of operations by nonprofessionals.
- Consistent operational breaks may ensure the fixture will function properly for many years to come.
- **DO NOT** shake fixture, avoid brute force when installing and/or operating fixture.
- Always install the fixture with an appropriate safety cable. When installing the fixture in a suspended environment, always use mounting hardware that is no less than M10 x 25 mm, also be sure the hardware is insert in the pre-arranged screw holes in the bracket of the fixture.
- Use the original packaging and materials to transport the fixture in for service.
- **DO NOT TOUCH** the housing bare-hand during its operation. Turn OFF the power and allow approximately 15 minutes for the fixture to cool down before replacing or serving.

FIXTURE OVERVIEW



- | | |
|---|-----------------------|
| 1: LCD Control Display | 6: Fuse |
| 2: DC Switch | 7: powerCON IN |
| 3: UP, DOWN, LEFT, RIGHT, ENTER Buttons | 8: 3pin, 5pin DMX IN |
| 4: MODE Button | 9: 3pin, 5pin DMX OUT |
| 5: NET IN/OUT (RJ45 Ethernet) | 10: powerCON OUT |

FIXTURE INSTALLATION



FLAMMABLE MATERIAL WARNING

Keep fixture at least 5.0 ft (1.5m) away from any flammable materials, decorations, pyrotechnics, etc.



ELECTRICAL CONNECTIONS

A qualified electrician should be used for all electrical connections and/or installations.

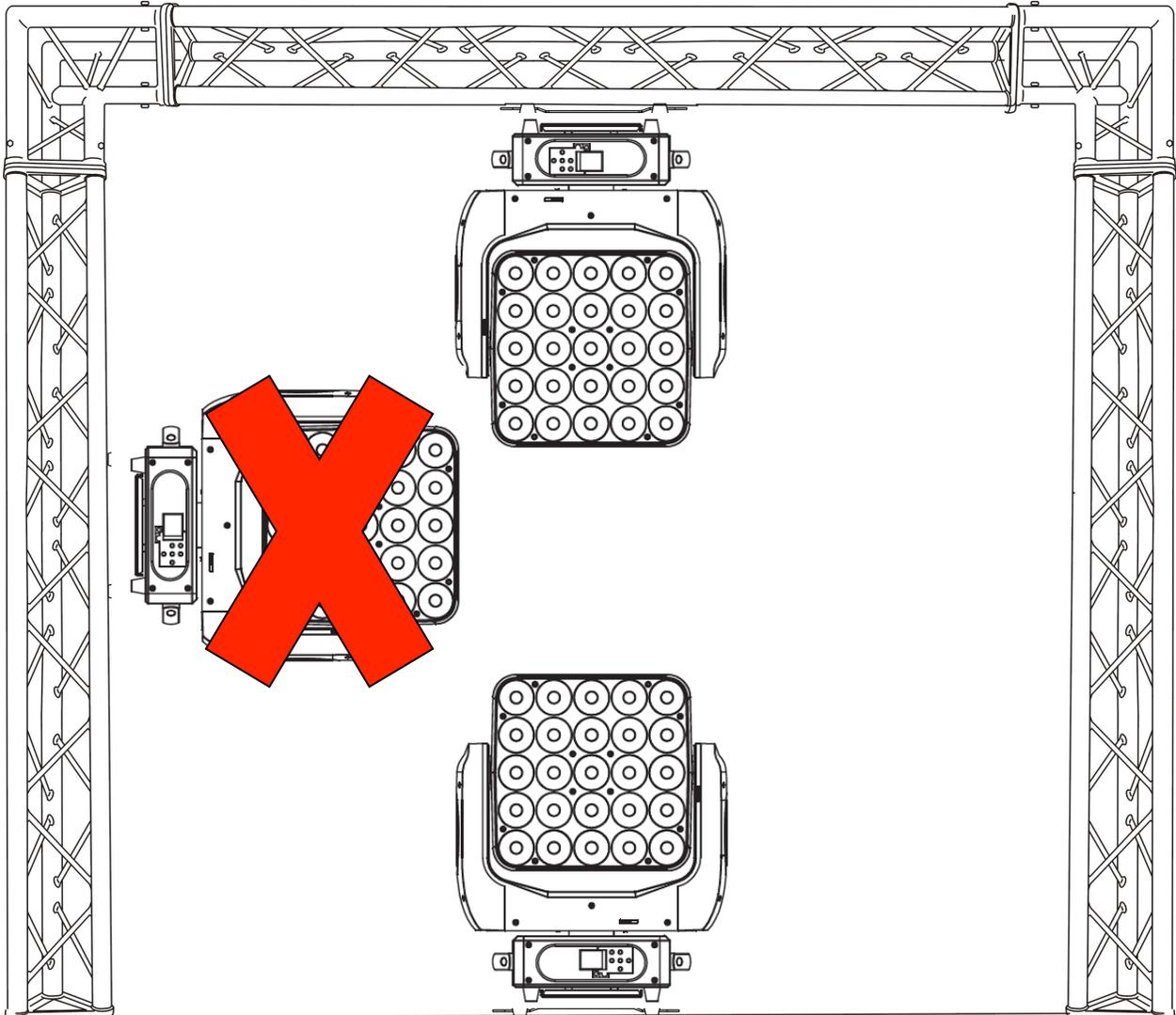


CAUTIONS

- For added protection, mount the fixture in areas outside walking paths, seating areas, or in areas where unauthorized personnel might reach the fixture.
- Ambient operating temperature range for this fixture is **5° to 113°F. (-15° to 45°C)**. Do not use the fixture under or above this temperature.
- Before mounting the fixture to any surface, make sure the installation area can hold a minimum point load of 10 times the weight of the fixture.
- Fixture installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.
- Never stand directly below the device when mounting, removing or servicing.

MOUNTING POINTS

- Overhead mounting requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.
- Fixture is fully operational in the specific mounting positions as illustrated below.



SAFETY CABLE

Always use a Safety Cable whenever installing this fixture in a suspended environment to ensure the fixture will not drop if the clamp fails.

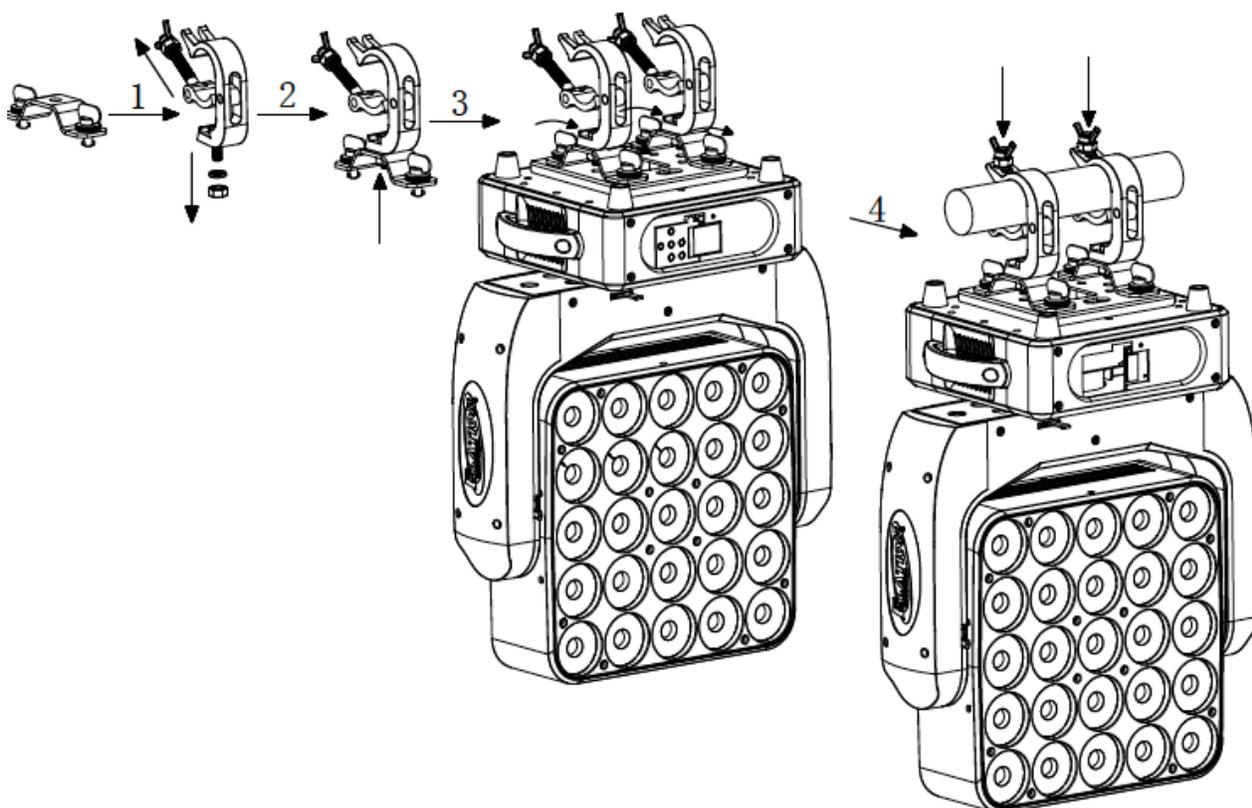
POWER LINKING



Max number of units that can be power linked is **3 units @110V** and **6 units @240V**.

CLAMP MOUNTING

The fixture provides a unique mounting assembly (**2x Omega Brackets**) that integrates the bottom of the base. (See the illustration below). When mounting this fixture to truss be sure to secure an appropriately rated clamp to the included **Omega Brackets** using a M10 screw fitted through the center hole of the **Omega Bracket**. Be sure to attach an appropriate **Safety Cable** (not included) to the fixture using the safety cable rigging point integrated in the base assembly.



SECURING

Regardless of the rigging option you choose for your fixture always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable. Be sure to only use the designated rigging point for the safety cable and never secure a safety cable to a carrying handle.

FIXTURE MENU

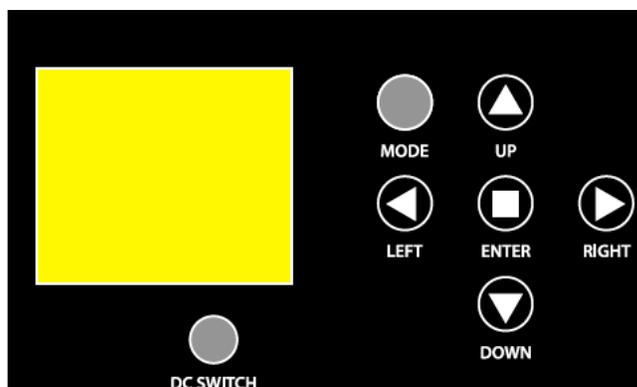
ON-BOARD SYSTEM MENU

The fixture comes with an easy to navigate system menu. The next section will detail the functions of each command in the system menu.

LCD MENU CONTROL PANEL

The control panel (see image below) located on back of the fixture allows you to access the main menu and make all necessary adjustments to the fixture. During normal operation, pressing **MODE** button once will access the fixture's main menu. Once in the main menu you can navigate through the different functions and access the sub-menus with the **UP**, **DOWN**, **RIGHT**, and **LEFT** buttons. Once you reach a field that requires adjusting, press the **ENTER** button to activate that field and use the **UP** and **DOWN** buttons to adjust the field. Pressing the **ENTER** button once more will confirm your setting. You may exit the main menu at any time without making any adjustments by pressing the **MODE/ESC** button.

 **NOTE:** To access the LCD Menu Control Display via the internal battery, press and hold the **DC SWITCH** button for 3 seconds. The LCD Menu Control Display will shut **OFF** automatically about 1 minute from the last button press.



INFORMATION DISPLAYED DURING INITIAL POWER ON

When the fixture is initially powered ON, the display shows the following information:



**ELATION© ACL 360 MATRIX™
SYSTEM MENU**

Specifications and features are subject to change without any prior written notice.

MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in BOLD)		DESCRIPTION	
Receive	Set DMX Address	A001 ~ AXXX		DMX Address Setting	
User Mode	User Mode	Standard , Basic, Extend, User A, User B, User C		Set DMX Channel Mode	
	Edit A	Max. Chan		Edit User Defined Channel Assignments	
	Edit B	:			
	Edit C	Fade Time			
Function	Status	Remote Add	ON/OFF	Address Via DMX	
		NoDMX Mode	Hold / Auto / Blackout	Function If NO DMX Detected	
		Pan Invert	ON/OFF	Pan Reverse Movement	
		TiltInvert	ON/OFF	Tilt Reverse Movement	
		Pan Degree	630/ 540	Pan Degree Select	
		Feedback	ON/OFF	Movement Feedback	
		Move. Spd	Speed 1 ~ 4	Movement Mode Select	
		Stand By	OFF, 01M~99M, 15M	Stand By Mode	
	Fixture ID	ServicePIN	PIN=XXX		Service PIN 050
		RDM PID	XXXXX		RDM PID Code
		UnitIPAddr	XXX.XXX.XXX.XXX.		Enter Fixture's IP Address
		Universe	000-255		Enter Universe Number
	Fan. Set	Auto , High, Low		Set Head Fan Speed	
	ProtocolSet	ArtNet , Kling-Net		Fans Speed Select	
	Net Switch	ON/OFF		Activate NET OUT Port.	
	LCD. Set	Backlight	02~60m 05m	LCD Backlight Shut Off Time	
		FlipDisplay	ON/OFF	Flip Display 180°	
		Key Lock	ON/OFF	Control Buttons Key Lock	
		Disp Flash	ON/OFF	Display flashes when NO DMX	
	Dim Curve	Standard , Stage, TV, Architectur, Theatre		Set Dimmer Curve Mode	
	Temp. C/F	Celsius/Fahrenheit		Temperature Switch Between C° / F°	
	Init. Effect	PAN =XXX		Initial Effect Position	
	Disp. Set	Chan. Value	PAN...		Value of each Channel Displayed
		Slave Set	Slave 1, Slave 2, Slave 3		Set Slave Mode Preset
		Auto.Pro	Alone, Master		Set Auto Program Mode
	DFSE	ON/OFF		Restore Factory Settings	
	Information	Time. Info	Current	XXXX (Hours)	Fixture Run Time From Power ON
Total Time			XXXX (Hours)	Fixture Total Run Time	
Last Clear			XXXX (Hours)	Clear Fixture Last Run Time	
Timer PIN			PIN= 066	Enter PIN to Access Clear Last. Menu	
Clean Last			ON / OFF	Reset Fixture Last Run Time	
Temp. Info		Head Temp.	XXX C° / F°	Temperature in Fixture Head	
Error. Info				Reset Error Message	
Model. Info		ACL 360 Bar		Display Model Name	
Software Version		1U01:	≥V1.12		Software Versions
		2U01:	≥V1.06		
		3U01:	≥V1.12		
Error Info	Error Record 1 ~ Error Record 10		Pan....		

ELATION© ACL 360 MATRIX™ SYSTEM MENU					
Specifications and features are subject to change without any prior written notice.					
MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in BOLD)		DESCRIPTION	
Test	Reset. M			Reset of Pan/Tilt Motors	
	Test. Chan			Test Functions	
	Panel. Ctrl			Fine Adjustments	
	Calibrate	Password	Password= 050	Calibration of Motors and LEDs	
Program	Select. Pro	Auto Pro Part1 = Program 1~9 (Program 1)		Select Programs To Be Run	
		Auto Pro Part2 = Program 1~9 (Program 2)			
		Auto Pro Part3 = Program 1~9 (Program 3)			
	Edit. Pro	Program 1	Program Test		Testing Program
		:	Step 01 = SCxxx		Program In Loop
		Program 9	Step 64 = SCxxx		Save and Exit
	Edit. Sce	Scene 001 ~ Scene 250	Pan,Tilt,.....		Save and Automatically Return
			--Fade Time-- --Scene Time--		Manual Scenes Edit
			Input By Outside		Stores Scenes via Ext DMX Console
	Sce. Input	XX~XX			Automatic Scenes Recorder

Function - Status - Remote Add

When ON, define the desired DMX address of fixture via an external controller.

1. Connect the fixture to the external controller and power ON.
2. Set the DMX value of **Channel 1** on the controller to **(7)**.
3. Set the DMX value of **Channel 2** on the controller to **(7)** or **(8)**.

When set to **(7)**, the DMX address can be set between **(1)** and **(255)**.

When set to **(8)**, the DMX address can be set between **(256)** and **(511)**.

4. Using **Channel 3** on the controller set the desired DMX address of the fixture.

Example 1:

If the desired DMX address is **57**, set **Channel 1** to a value of **(7)**, set **Channel 2** to a value of **(7)**, and then set **Channel 3** to a value of **(57)**.

Example 2:

If the desired DMX address is **420**, set **Channel 1** to a value of **(7)**, set **Channel 2** to a value of **(8)**, and then set **Channel 3** to a value of **(164)**. (256+164=420)

5. After setting **Channel 3** to the desired DMX address value, wait for approximately 20 seconds for the fixture to complete the address reset function.

Function – Fixture ID - RDM PID

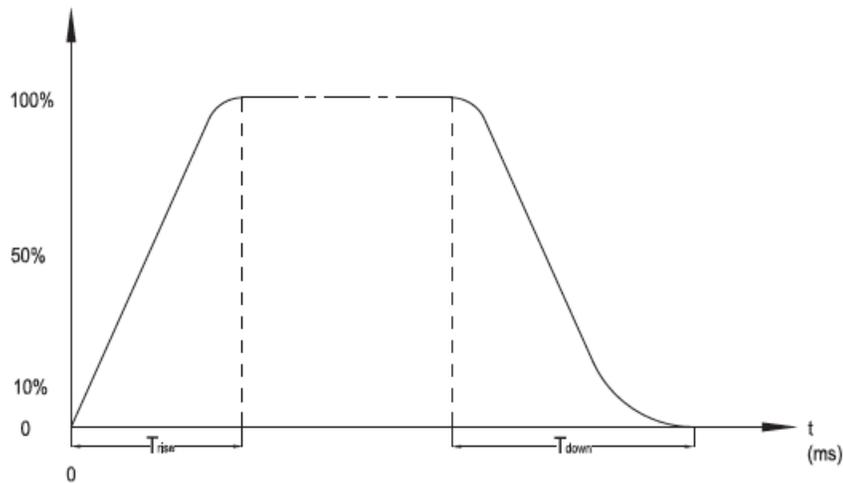
Select various submenus via RDM.

RDM stands for "Remote Device Management", which provides the ability to control the device remotely while connected to a DMX-bus. ANSI E1.20-2006 by ESTA specifies the RDM standard as an extension of the DMX512 protocol. Manual settings like adjusting the DMX starting address are no longer needed. This is especially useful when the device is installed in a remote area.

RDM ready and conventional DMX devices can be operated in one DMX line. The RDM protocol sends its own packages in the DMX512 data feed and does not influence conventional devices. If DMX splitters are used and RDM control is to be used, these splitters must support RDM. The number and type of RDM parameters depend on the RDM controller being used.

Function - Dim Curve

Select desired DIMMER MODE (**Standard**, Stage, TV, Architectural, Theatre).



Ramp Effect	0S (Fade Time)		1S (Fade Time)	
	T _{rise} (ms)	T _{down} (ms)	T _{rise} (ms)	T _{down} (ms)
Standard	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280

Test – Calibrate



ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION.

This function allows small adjustments to be made to the effect wheels to compensate for wear or in the event a sensor has been knocked slightly out of place. Because improper use of this function can result in undesired operation this function has been password protected. The password is **050** and must be entered each time the calibration menu function is entered. Because calibration is an extremely delicate procedure, instructions on performing this action are left out of this manual. For a first time calibrator, please contact our customer support team for step-by-step instructions.

DMX CHANNEL FUNCTIONS AND VALUES

ELATION© ACL 360 MATRIX™				
DMX Channel Values / Functions Version 1 (115 DMX Channels)				
Specifications are subject to change without any prior written notice.				
*Pixel control position depends on the specific Pan/Tilt position of the head.				
MODE / CHANNEL			VALUE	FUNCTION
BASIC	STAND	EXTEND		
1	1	1		PAN MOVEMENT [8 BIT]
			0-255	PAN Movement 630/540
	2	2		PAN FINE MOVEMENT [16 BIT]
			0-255	Fine Control of PAN Movement
2	3	3		TILT MOVEMENT [8 BIT]
			0-255	TILT Movement
	4	4		TILT MOVEMENT [16 BIT]
			0-255	Fine Control of TILT Movement
3	5	5		PAN CONTINUOUS MOVEMENT
			0-127	NO FUNCTION
			128-189	PAN Clockwise from FAST to SLOW
			190-193	NO Rotation
			194-255	PAN Counter-Clockwise from SLOW to FAST
4	6	6		TILT CONTINUOUS MOVEMENT
			0-127	NO FUNCTION
			128-189	TILT Clockwise from FAST to SLOW
			190-193	NO Rotation
			194-255	TILT Counter-Clockwise from SLOW to FAST
5	7			RED (ALL LEDs)
			0-255	0 to 100%
6	8			GREEN (ALL LEDs)
			0-255	0 to 100%
7	9			BLUE (ALL LEDs)
			0-255	0 to 100%
8	10			WHITE (ALL LEDs)
			0-255	BLUE FINE Adjustment
		7		*RED - LED 1
			0-255	0 to 100%
		8		*GREEN - LED 1
			0-255	0 to 100%
		9		*BLUE - LED 1
			0-255	0 to 100%
		10		*WHITE - LED 1
			0-255	0 to 100%
		11		*RED - LED 2
			0-255	0 to 100%
		12		*GREEN - LED 2
			0-255	0 to 100%
		13		*BLUE - LED 2
			0-255	0 to 100%
		14		*WHITE - LED 2
			0-255	0 to 100%

ELATION© ACL 360 MATRIX™				
DMX Channel Values / Functions Version 1 (115 DMX Channels)				
Specifications are subject to change without any prior written notice.				
*Pixel control position depends on the specific Pan/Tilt position of the head.				
MODE / CHANNEL			VALUE	FUNCTION
BASIC	STAND	EXTEND		
		15	0-255	*RED - LED 3 0 to 100%
		16	0-255	*GREEN - LED 3 0 to 100%
		17	0-255	*BLUE - LED 3 0 to 100%
		18	0-255	*WHITE - LED 3 0 to 100%
		19	0-255	*RED - LED 4 0 to 100%
		20	0-255	*GREEN - LED 4 0 to 100%
		21	0-255	*BLUE - LED 4 0 to 100%
		22	0-255	*WHITE - LED 4 0 to 100%
		23	0-255	*RED - LED 5 0 to 100%
		24	0-255	*GREEN - LED 5 0 to 100%
		25	0-255	*BLUE - LED 5 0 to 100%
		26	0-255	*WHITE - LED 5 0 to 100%
		27	0-255	*RED - LED 6 0 to 100%
		28	0-255	*GREEN - LED 6 0 to 100%
		29	0-255	*BLUE - LED 6 0 to 100%
		30	0-255	*WHITE - LED 6 0 to 100%
		31	0-255	*RED - LED 7 0 to 100%
		32	0-255	*GREEN - LED 7 0 to 100%
		33	0-255	*BLUE - LED 7 0 to 100%
		34	0-255	*WHITE - LED 7 0 to 100%

ELATION© ACL 360 MATRIX™			
DMX Channel Values / Functions Version 1 (115 DMX Channels)			
Specifications are subject to change without any prior written notice.			
*Pixel control position depends on the specific Pan/Tilt position of the head.			
MODE / CHANNEL			FUNCTION
BASIC	STAND	EXTEND	
		35	*RED - LED 8
		0-255	0 to 100%
		36	*GREEN - LED 8
		0-255	0 to 100%
		37	*BLUE - LED 8
		0-255	0 to 100%
		38	*WHITE - LED 8
		0-255	0 to 100%
		39	*RED - LED 9
		0-255	0 to 100%
		40	*GREEN - LED 9
		0-255	0 to 100%
		41	*BLUE - LED 9
		0-255	0 to 100%
		42	*WHITE - LED 9
		0-255	0 to 100%
		43	*RED - LED 10
		0-255	0 to 100%
		44	*GREEN - LED 10
		0-255	0 to 100%
		45	*BLUE - LED 10
		0-255	0 to 100%
		46	*WHITE - LED 10
		0-255	0 to 100%
		47	*RED - LED 11
		0-255	0 to 100%
		48	*GREEN - LED 11
		0-255	0 to 100%
		49	*BLUE - LED 11
		0-255	0 to 100%
		50	*WHITE - LED 11
		0-255	0 to 100%
		51	*RED - LED 12
		0-255	0 to 100%
		52	*GREEN - LED 12
		0-255	0 to 100%
		53	*BLUE - LED 12
		0-255	0 to 100%
		54	*WHITE - LED 12
		0-255	0 to 100%

ELATION© ACL 360 MATRIX™			
DMX Channel Values / Functions Version 1 (115 DMX Channels)			
Specifications are subject to change without any prior written notice.			
*Pixel control position depends on the specific Pan/Tilt position of the head.			
MODE / CHANNEL			FUNCTION
BASIC	STAND	EXTEND	
		55	*RED - LED 13
			0-255 0 to 100%
		56	*GREEN - LED 13
			0-255 0 to 100%
		57	*BLUE - LED 13
			0-255 0 to 100%
		58	*WHITE - LED 13
			0-255 0 to 100%
		59	*RED - LED 14
			0-255 0 to 100%
		60	*GREEN - LED 14
			0-255 0 to 100%
		61	*BLUE - LED 14
			0-255 0 to 100%
		62	*WHITE - LED 14
			0-255 0 to 100%
		63	*RED - LED 15
			0-255 0 to 100%
		64	*GREEN - LED 15
			0-255 0 to 100%
		65	*BLUE - LED 15
			0-255 0 to 100%
		66	*WHITE - LED 15
			0-255 0 to 100%
		67	*RED - LED 16
			0-255 0 to 100%
		68	*GREEN - LED 16
			0-255 0 to 100%
		69	*BLUE - LED 16
			0-255 0 to 100%
		70	*WHITE - LED 16
			0-255 0 to 100%
		71	*RED - LED 17
			0-255 0 to 100%
		72	*GREEN - LED 17
			0-255 0 to 100%
		73	*BLUE - LED 17
			0-255 0 to 100%
		74	*WHITE - LED 17
			0-255 0 to 100%

ELATION© ACL 360 MATRIX™				
DMX Channel Values / Functions Version 1 (115 DMX Channels)				
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*Pixel control position depends on the specific Pan/Tilt position of the head.				
MODE / CHANNEL			VALUE	FUNCTION
BASIC	STAND	EXTEND		
		75	0-255	*RED - LED 18 0 to 100%
		76	0-255	*GREEN - LED 18 0 to 100%
		77	0-255	*BLUE - LED 18 0 to 100%
		78	0-255	*WHITE - LED 18 0 to 100%
		79	0-255	*RED - LED 19 0 to 100%
		80	0-255	*GREEN - LED 19 0 to 100%
		81	0-255	*BLUE - LED 19 0 to 100%
		82	0-255	*WHITE - LED 19 0 to 100%
		83	0-255	*RED - LED 20 0 to 100%
		84	0-255	*GREEN - LED 20 0 to 100%
		85	0-255	*BLUE - LED 20 0 to 100%
		86	0-255	*WHITE - LED 20 0 to 100%
		87	0-255	*RED - LED 21 0 to 100%
		88	0-255	*GREEN - LED 21 0 to 100%
		89	0-255	*BLUE - LED 21 0 to 100%
		90	0-255	*WHITE - LED 21 0 to 100%
		91	0-255	*RED - LED 22 0 to 100%
		92	0-255	*GREEN - LED 22 0 to 100%
		93	0-255	*BLUE - LED 22 0 to 100%
		94	0-255	*WHITE - LED 22 0 to 100%

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DMX Channel Values / Functions Version 1 (115 DMX Channels)			
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MODE / CHANNEL			FUNCTION
BASIC	STAND	EXTEND	
		95	*RED - LED 23
			0-255 0 to 100%
		96	*GREEN - LED 23
			0-255 0 to 100%
		97	*BLUE - LED 23
			0-255 0 to 100%
		98	*WHITE - LED 23
			0-255 0 to 100%
		99	*RED - LED 24
			0-255 0 to 100%
		100	*GREEN - LED 24
			0-255 0 to 100%
		101	*BLUE - LED 24
			0-255 0 to 100%
		102	*WHITE - LED 24
			0-255 0 to 100%
		103	*RED - LED 25
			0-255 0 to 100%
		104	*GREEN - LED 25
			0-255 0 to 100%
		105	*BLUE - LED 25
			0-255 0 to 100%
		106	*WHITE - LED 25
			0-255 0 to 100%

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DMX Channel Values / Functions Version 1 (115 DMX Channels)				
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*Pixel control position depends on the specific Pan/Tilt position of the head.				
MODE / CHANNEL			VALUE	FUNCTION
BASIC	STAND	EXTEND		
9	11	107		COLOR MACROS
			0	OFF
			1-4	COLOR MACRO 01
			5-8	COLOR MACRO 02
			9-12	COLOR MACRO 03
			13-16	COLOR MACRO 04
			17-20	COLOR MACRO 05
			21-24	COLOR MACRO 06
			25-28	COLOR MACRO 07
			29-32	COLOR MACRO 08
			33-36	COLOR MACRO 09
			37-40	COLOR MACRO 10
			41-44	COLOR MACRO 11
			45-48	COLOR MACRO 12
			49-52	COLOR MACRO 13
			53-56	COLOR MACRO 14
			57-60	COLOR MACRO 15
			61-64	COLOR MACRO 16
			65-68	COLOR MACRO 17
			69-72	COLOR MACRO 18
			73-76	COLOR MACRO 19
			77-80	COLOR MACRO 20
			81-84	COLOR MACRO 21
			85-88	COLOR MACRO 22
			89-92	COLOR MACRO 23
			93-96	COLOR MACRO 24
			97-100	COLOR MACRO 25
			101-104	COLOR MACRO 26
			105-108	COLOR MACRO 27
			109-112	COLOR MACRO 28
			113-116	COLOR MACRO 29
			117-120	COLOR MACRO 30
			121-124	COLOR MACRO 31
125-128	COLOR MACRO 32			

ELATION® ACL 360 MATRIX™				
DMX Channel Values / Functions Version 1 (115 DMX Channels)				
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*Pixel control position depends on the specific Pan/Tilt position of the head.				
MODE / CHANNEL			VALUE	FUNCTION
BASIC	STAND	EXTEND		
9	11	107		COLOR MACROS [continued]
			129-132	COLOR MACRO 33
			133-136	COLOR MACRO 34
			137-140	COLOR MACRO 35
			141-144	COLOR MACRO 36
			145-148	COLOR MACRO 37
			149-152	COLOR MACRO 38
			153-156	COLOR MACRO 39
			157-160	COLOR MACRO 40
			161-164	COLOR MACRO 41
			165-168	COLOR MACRO 42
			169-172	COLOR MACRO 43
			173-176	COLOR MACRO 44
			177-180	COLOR MACRO 45
			181-184	COLOR MACRO 46
			185-188	COLOR MACRO 47
			189-192	COLOR MACRO 48
			193-196	COLOR MACRO 49
			197-200	COLOR MACRO 50
			201-204	COLOR MACRO 51
			205-208	COLOR MACRO 52
			209-212	COLOR MACRO 53
			213-216	COLOR MACRO 54
			217-220	COLOR MACRO 55
			221-224	COLOR MACRO 56
			225-228	COLOR MACRO 57
			229-232	COLOR MACRO 58
			233-236	COLOR MACRO 59
			237-240	COLOR MACRO 60
			241-244	COLOR MACRO 61
			245-248	COLOR MACRO 62
			249-252	COLOR MACRO 63
			253-255	COLOR MACRO 64
10	12	108		FLASH / STROBE
			0-31	LEDs OFF
			32-63	LEDs ON
			64-95	Strobe Effect SLOW to FAST
			96-127	LEDs ON
			128-159	Pulse Effect in Sequences
			160-191	LEDs ON
			192-223	Random Strobe Effect SLOW to FAST
224-255	LEDs ON			

ELATION® ACL 360 MATRIX™			
DMX Channel Values / Functions Version 1 (115 DMX Channels)			
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*Pixel control position depends on the specific Pan/Tilt position of the head.			
MODE / CHANNEL			FUNCTION
BASIC	STAND	EXTEND	
11	13	109	DIMMER INTENSITY
			0-255 Intensity 0 to 100%
12	14	110	DIMMER INTENSITY FINE
			0-255 Dimmer Intensity FINE Adjustment
13	15	111	AUTO PROGRAM MACROS
			0 NO FUNCTION
			1-10 PROGRAM MACRO 01
			11-20 PROGRAM MACRO 02
			21-30 PROGRAM MACRO 03
			31-40 PROGRAM MACRO 04
			41-50 PROGRAM MACRO 05
			51-60 PROGRAM MACRO 06
			61-70 PROGRAM MACRO 07
			71-80 PROGRAM MACRO 08
			81-90 PROGRAM MACRO 09
			91-100 PROGRAM MACRO 10
			101-110 PROGRAM MACRO 11
			111-120 PROGRAM MACRO 12
			121-130 PROGRAM MACRO 13
			131-140 PROGRAM MACRO 14
			141-150 PROGRAM MACRO 15
			151-160 PROGRAM MACRO 16
			161-170 PROGRAM MACRO 17
			171-180 PROGRAM MACRO 18
			181-190 PROGRAM MACRO 19
			191-200 PROGRAM MACRO 20
			201-210 PROGRAM MACRO 21
			211-220 PROGRAM MACRO 22
			221-230 PROGRAM MACRO 23
231-240 PROGRAM MACRO 24			
241-250 PROGRAM MACRO 25			
251-255 Gradient Effect			
14	16	112	AUTO PROGRAM MACRO SPEED
			0-255 Auto Program Macro Speed SLOW to FAST
15	17	113	DIMMING CURVE MODES
			0-20 STANDARD
			21-40 STAGE
			41-60 TV
			61-80 ARCHITECTURAL
			81-100 THEATRE
101-255 Default to Unit Setting			

ELATION© ACL 360 MATRIX™				
DMX Channel Values / Functions Version 1 (115 DMX Channels)				
Specifications are subject to change without any prior written notice.				
*Pixel control position depends on the specific Pan/Tilt position of the head.				
MODE / CHANNEL			VALUE	FUNCTION
BASIC	STAND	EXTEND		
16	18	114		PAN / TILT MOVEMENT SPEED
			0-225	MAX to MIN SPEED
			226-235	Blackout By Movement
			236-255	NO FUNCTION
17	19	115		LAMP ON/OFF, RESET, INTERNAL PROGRAMS
			0-79	Normal
			80-84	ALL Motor Reset
			85-99	NO FUNCTION
			100-119	Internal Program 1 (scene1~8 of EEPROM)
			120-139	Internal Program 2 (scene9~16 of EEPROM)
			140-159	Internal Program 3 (scene17~24 of EEPROM)
			160-179	Internal Program 4 (scene25~32 of EEPROM)
			180-199	Internal Program 5 (scene33~40 of EEPROM)
			200-219	Internal Program 6 (scene41~48 of EEPROM)
			220-239	Internal Program 7 (scene49~56 of EEPROM)
240-255	NO FUNCTION			

ERROR CODES

When power is applied, the unit will automatically enter a **“Motor Reset”** mode, which brings all the internal motors to a home position. If there is an internal problem with one or more of the motors, an error code (see below) will flash on the control display.

ELATION© ACL 360 MATRIX™ ERROR CODES	
Specifications and features are subject to change without any prior written notice.	
ERROR CODE	DESCRIPTION
TILT Er	The TILT movement is not located in the default position after the reset. This message will appear after a fixture reset if the magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or there is a motor failure (defective motor or defective motor IC drive on main PCB). This error may also be displayed if the head was blocked during a reset function
PAN Er	The PAN movement is not located in the default position after the reset. This message will appear after a fixture reset if the magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or there is a motor failure (defective motor or a defective motor IC drive on the main PCB). This error may also be displayed if the head/yoke was blocked during a reset function.

CLEANING AND MAINTENANCE



C A U T I O N

Disconnect power before cleaning or maintenance.

CLEANING

Frequent cleaning is recommended to insure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the environment in which the fixture operates: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics.

- Clean the external lens surface at least every 20 days with a soft cloth to avoid dirt/debris accumulation.
- Never use alcohol, solvents, or ammonia based cleaners.

MAINTENANCE

Regular inspections are recommended to insure proper function and extended life. There are no user serviceable parts inside this fixture, please refer all other service issues to an authorized Elation service technician. Should you need any spare parts, please order genuine parts from your local Elation dealer.

Please refer to the following points during routine inspections:

- A detailed electric check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation resulting in damage or injury as larger parts could fall.
- Check for any deformations on the housing, color lenses, rigging hardware and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).
- Electric power supply cables must not show any damage, material fatigue or sediments. Never remove the ground prong from the power cable.

TECHNICAL SPECIFICATIONS

SOURCE

(25) 15W RGBW 4-in-1 LEDs
100,000 Hour Average Lamp Life

EFFECTS

Individual Pixel Control
Strobe and Selectable Dimming Curves

COLOR

RGBW

CONTROL / CONNECTIONS

(3) DMX Channel Modes (17 / 19 / 115)
RDM (Remote Device Management)
6 Button Touch Control Panel
Full Color 180° Reversible LCD Menu Display
8 / 16 Bit Resolution Adjustable Movement
3pin/5pin DMX In/Out
RJ45 Ethernet In/Out (KlingNET™ / Art-NET)
powerCON Power In/Out

SIZE / WEIGHT

Length: 19.0" (481mm)
Width: 13.8" (350mm)
Vertical Height: 23.0" (583mm)
Weight: 45.0 lbs. (20.4 kg)

ELECTRICAL / THERMAL

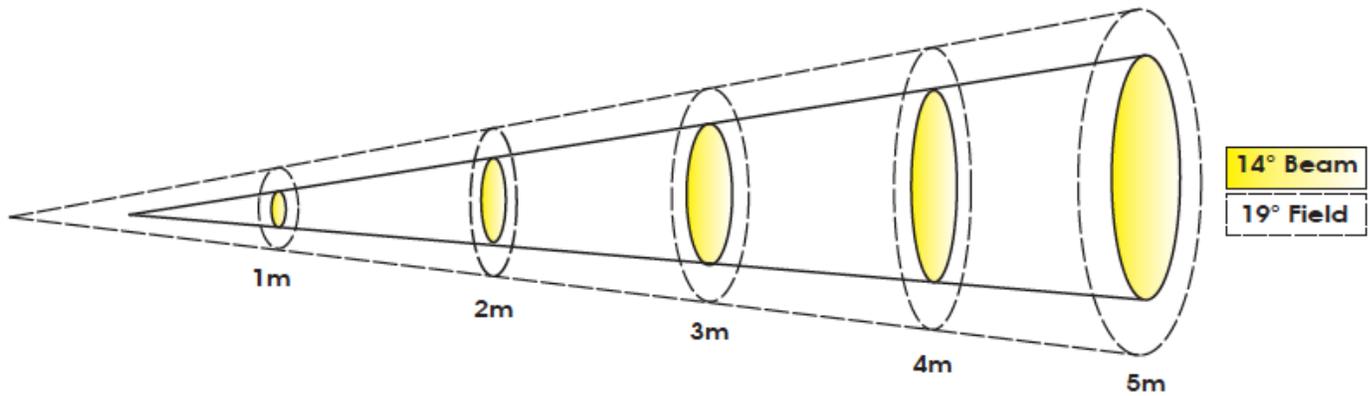
AC 100-240V - 50/60Hz
425W Max Power Consumption
5F to 113°F (-15°C to 45°C)

APPROVALS / RATINGS

CE | IP30

Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

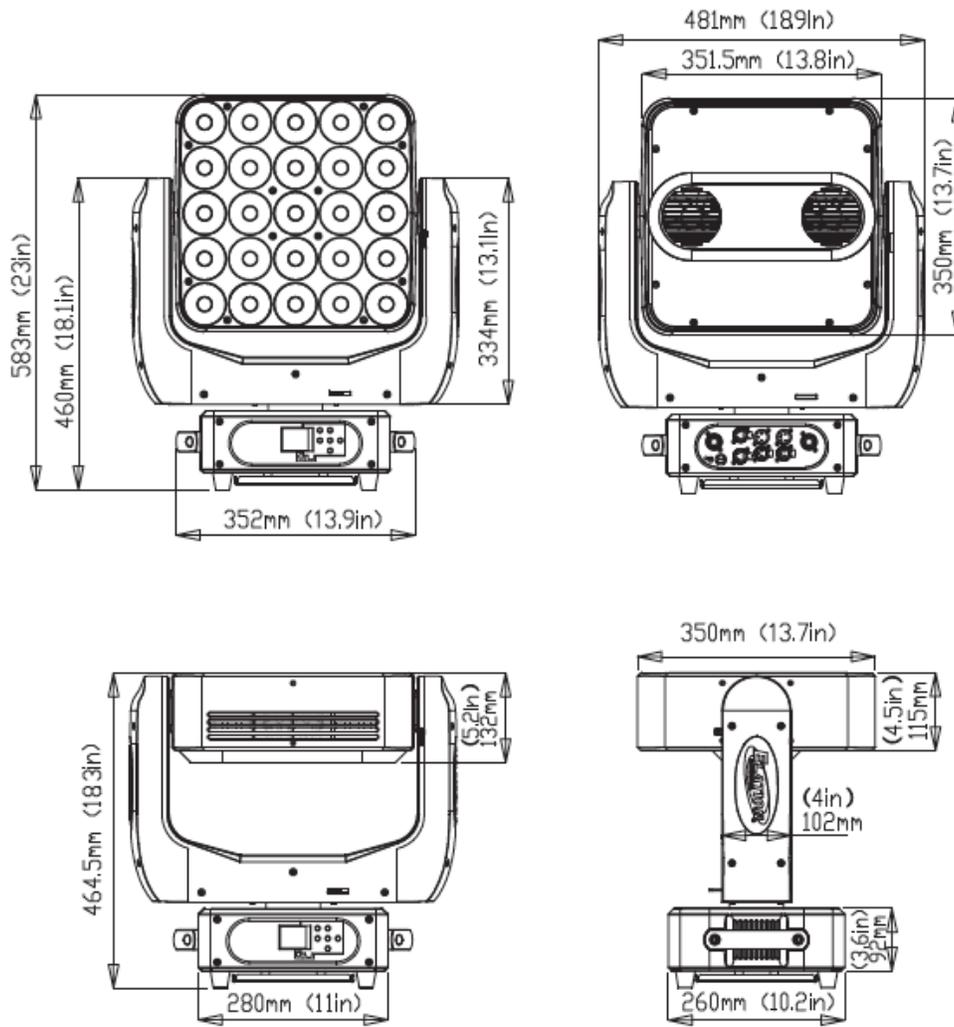
PHOTOMETRIC DATA



	1 m	3.3 ft	2 m	6.6 ft	3 m	9.8 ft	4 m	13.1 ft	5 m	16.4 ft
14° Beam Diameter	0.28	0.9	0.60	2.0	0.96	3.1	1.27	4.2	1.58	5.2
19° Field Diameter	0.33	1.1	0.69	2.3	1.03	3.4	1.38	4.5	1.72	5.6
	lux	fc								
RED LEDs	15,116	1,404	9,537	886	7,623	708	5,847	543	4,518	420
GREEN LEDs	33,054	3,071	25,468	2,366	18,072	1,679	12,970	1,205	9,849	915
BLUE LEDs	5,263	489	4,632	430	3,873	360	3,095	288	2,201	204
WHITE LEDs	39,711	3,689	30,574	2,840	23,545	2,187	16,999	1,579	12,883	1,197
FULL ON	77,344	7,185	70,370	6,537	54,413	5,055	40,505	3,763	29,722	2,761

Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

DIMENSIONAL DRAWINGS



Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

OPTIONAL ACCESSORIES

ORDER CODE	ITEM
TRIGGER CLAMP	Heavy Duty Wrap Around Hook Style Clamp
EWDMXSYSTEM	Wireless DMX System (1 Transmitter, 1 Receiver)
CAT005	5' (1.5m) CAT6 EtherCON Cable
PLC3	3 ft. (1m) PowerCON PRO Link Cable
AC3PDMX5PRO	5 ft. (1.5m) 3pin PRO DMX Cable
AC5PDMX5PRO	5 ft. (1.5m) 5pin PRO DMX Cable
	Additional Cable Lengths Available

