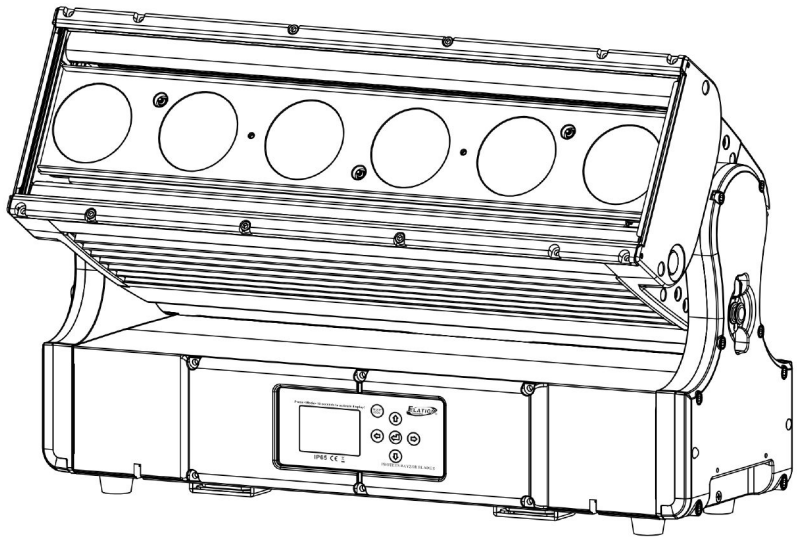
ELATION PROFESSIONAL



PROTEUS™

RAYZOR BLADE S

user manual

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DOCUMENT VERSION

Due to additional product features and/or enhancements, an updated version of this document may be available online. Please scan the QR Code with your mobile device or visit www.elationlighting.com for the latest revision/update of this manual, before installation and/or programming.

Date	Document Version	SoftwareVersion ≥	DMX Channel Modes	Notes
08/25/2020	1.0	1.0.0	28/50/82/106	Initial Release

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GENERAL INFORMATION

FOR PROFESSIONAL USE ONLY

INTRODUCTION

Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this device. These instructions contain important safety and use information. For professional use only.

IP65 RATED

An IP rated lighting fixture is one, which is commonly installed in outdoor environments and has been designed with an enclosure that effectively protects the ingress (entry) of external foreign objects such as dust and water. **The International Protection (IP)** rating system is commonly expressed as **"IP"** (Ingress Protection) followed by two numbers (i.e. IP65) where the numbers define the degree of protection. The first digit (Foreign Bodies Protection) indicates the extent of protection against particles entering the fixture and the second digit (Water Protection) indicates the extent of protection against water entering the fixture. An **IP65** rated lighting fixture is one, which has been designed and tested to protect against the ingress of dust **(6)** and low-pressure water jets from any direction **(5)**.

UNPACKING

Every device 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 is damaged, carefully inspect the device for damage, and be sure all accessories necessary to install and operate the device 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 device to your dealer without first contacting customer support. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

BOX CONTENTS

Omega Brackets (x2)
IP65 Rated 5pin DMX Cable
IP65 Rated RJ45 DATA Cable (Fixture to Fixture Interconnect Use Only!)
IP65 Rated Power Cable

CUSTOMER SUPPORT

Contact ELATION Service for any product related service and support needs.
Also visit forums.elationlighting.com with questions, comments or suggestions.

ELATION SERVICE USA-Monday-Friday 8:00am to 4:30pm PST
323-582-3322 | Fax 323-832-9142 | support@elationlighting.com

ELATION SERVICE EUROPE-Monday-Friday 08:30 to 17:00 CET
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REPLACEMENT PARTS please visit parts.elationlighting.com

LIMITED WARRANTY (USA ONLY)

To obtain warranty service, a Return Materials Authorization (RMA) number must first be obtained from ELATION. It is the Customer's responsibility to provide product proof of purchase and serial number by acceptable evidence such as an invoice copy or an approved ELATION Extended Warranty Certificate ("EWC") and any relevant maintenance records at the time warranty service is sought. Failure to provide acceptable evidence of product proof of purchase or EWC and any relevant maintenance records may be cause for denial of warranty service.

Products returned for warranty service must be sent without any accessories (i.e., power, data, and safety cables, brackets, clamps, rigging hardware, frost filters, gel frames, barn doors, lens, hoses, nozzles, rack mounting hardware, etc.), must be boxed using the original and/or suitable packaging materials (double-box and foam) that provides ample product protection for ground and/or air freight transit, and must be shipped freight pre-paid and insured to ELATION in Los Angeles, CA or an ELATION Authorized Service Center. The RMA number must be clearly written on the outside of the return box, and a brief description of the problem and the RMA number must be documented and included in the box.

Products returned for warranty service without an RMA number clearly marked on the outside of the package will be refused and returned to the shipper at the Customer's expense. Products returned for warranty service, which are received damaged due to inadequate and/or improper packaging and/or due to damage caused by shipping carrier, may incur additional repair charges before warranty service begins and/or may void this warranty. If any product accessories (included and/or optional) are shipped with the product, ELATION and/or the ELATION Authorized Service Center shall have no liability what so ever for the loss and/or damage to any such accessories, nor the safe return thereof. If the requested warranty repairs or service (including parts replacement) are within the terms of this warranty, ELATION will pay return ground transportation shipping charges to a single designated point within the United States.

SAFETY GUIDELINES

This fixture is a sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow all instructions and guidelines in this manual. Elation Professional is not responsible for injury and/or damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual. Only qualified and/or certified personnel should perform installation of this fixture and only the original rigging parts (omega brackets) included with this fixture should be used for installation. Any modifications to the fixture and/or the included mounting hardware will void the original manufactures warranty and increase the risk of damage and/or personal injury.



PROTECTION CLASS 1-FIXTURE MUST BE PROPERLY GROUNDED.



**THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT.
DO NOT ATTEMPT ANY REPAIRS YOURSELF; DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURE'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.**



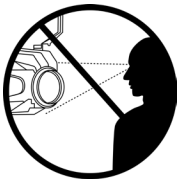
ENSURE ALL CONNECTIONS AND END CAPS ARE PROPERLY SEALED WITH A DIELECTRIC GREASE (AVAILABLE AT MOST ELECTRICAL SUPPLIERS) TO PREVENT WATER CORROSION AND/OR ELECTRICAL SHORT CIRCUIT.



**DO NOT PLUG FIXTURE INTO A DIMMER PACK!
NEVER OPEN THIS FIXTURE WHILE IN USE!
UNPLUG POWER BEFORE SERVICING FIXTURE!
NEVER TOUCH FIXTURE DURING OPERATION, AS IT MAY BE HOT!
KEEP FLAMMABLE MATERIALS AWAY FROM FIXTURE!**



IF THE FIXTURE IS EXPOSED TO ENVIRONMENTAL TEMPERATURE CHANGES SUCH AS RELOCATION FROM AN OUTDOOR COLD TO AN INDOOR WARM ENVIRONMENT, DO NOT POWER THE FIXTURE ON IMMEDIATELY. INTERNAL CONDENSATION AS A RESULT OF ENVIRONMENTAL TEMPERATURE CHANGE CAN CAUSE INTERNAL FIXTURE DAMAGE. LEAVE THE FIXTURE POWERED OFF UNTIL IT HAS REACHED ROOM TEMPERATURE BEFORE POWERING ON.



**NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE!
RETINA INJURY RISK-MAY INDUCE BLINDNESS!
SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK!**

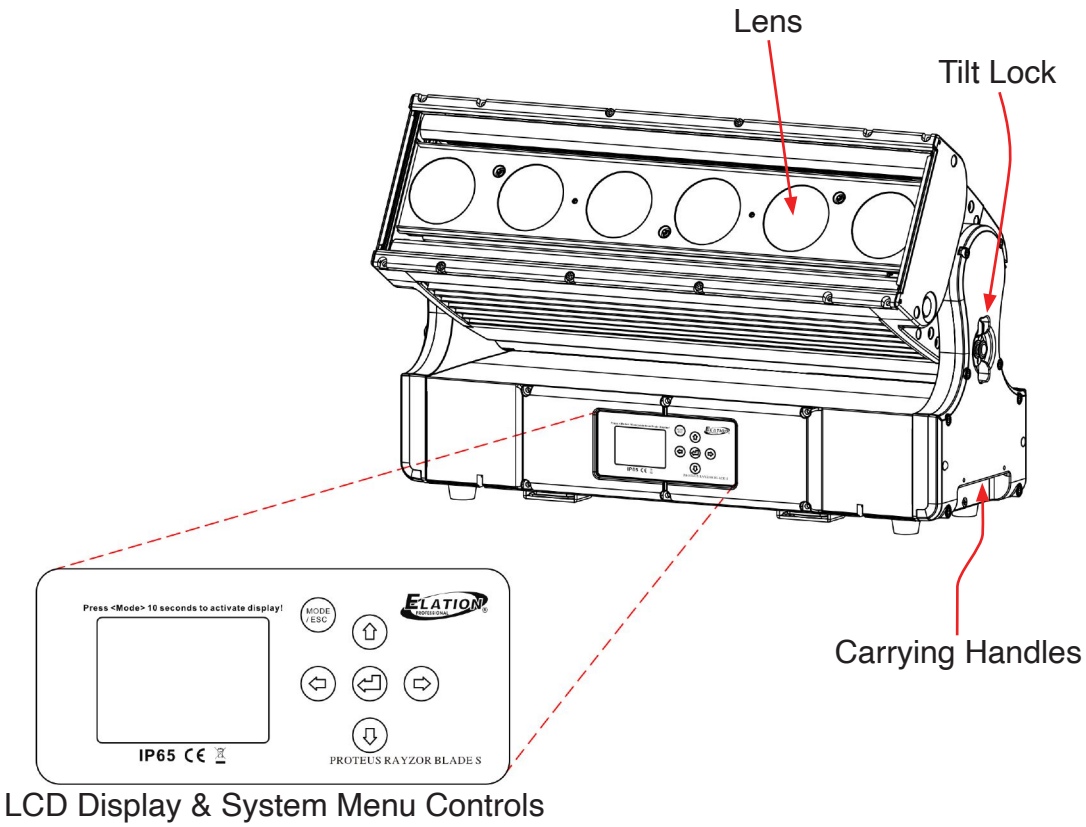


**MINIMUM DISTANCE TO OBJECTS/SURFACES
MUST BE 3.2 FEET (1.0 METERS)
MAXIMUM TEMP OF EXTERNAL SURFACE 185° F (85°C)
MINIMUM DISTANCE OF INFLAMMABLE MATERIALS
FROM THE SURFACE 3.2 FEET (1.0 METER)**

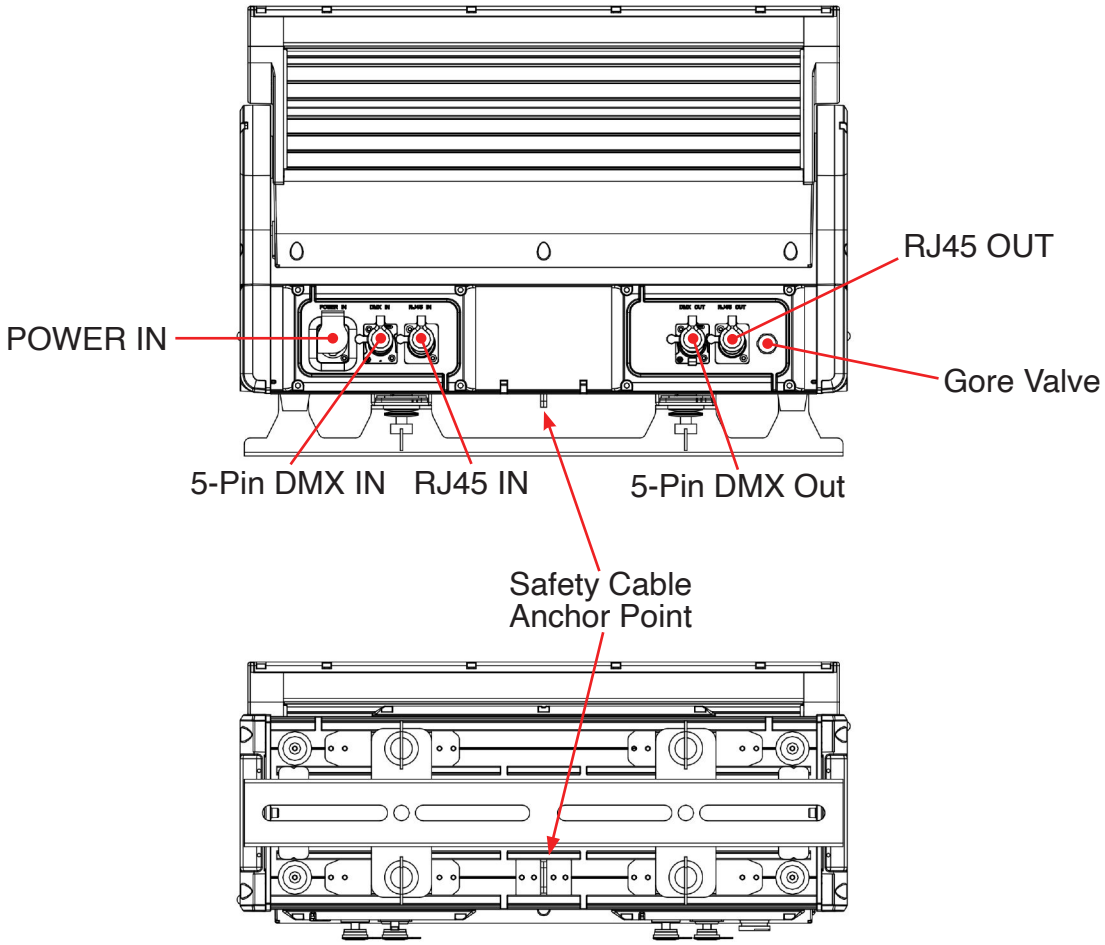
SAFETY GUIDELINES

- **DO NOT TOUCH** the fixture housing during operation. Turn OFF the power and allow approximately 15 minutes for the fixture to cool down before serving.
- **DO NOT** shake fixture, avoid brute force when installing and/or operating fixture.
- **DO NOT** operate fixture if the power cord is frayed, crimped, damaged and/or if any of the power cord connectors are damaged and do not insert into the fixture securely with ease. NEVER force a power cord connector into the fixture. If the power cord or any of its connectors are damaged, replace it immediately with a new one of similar power rating.
- **DO NOT** block any air ventilation slots.
- All fan and air inlets must remain clean and never blocked.
- Always disconnect fixture 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 the plug out by tugging the wire portion of the cord.
- Consistent operational breaks will ensure fixture will function properly for many years.
- ONLY use the original packaging and materials to transport the fixture in for service.

OVERVIEW

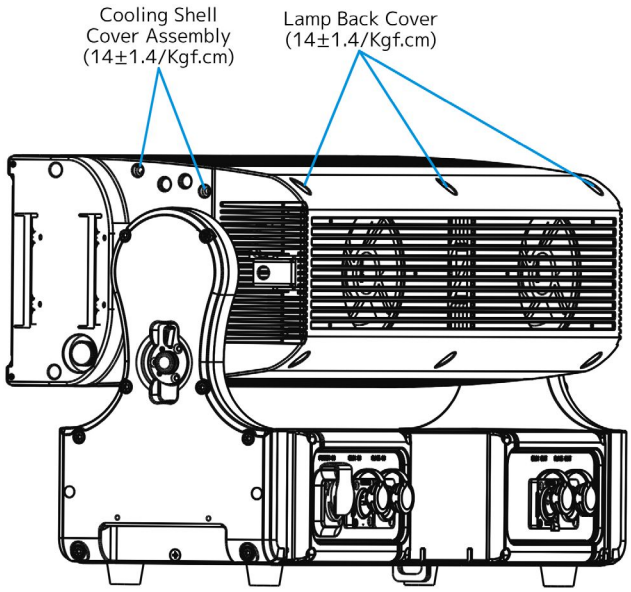


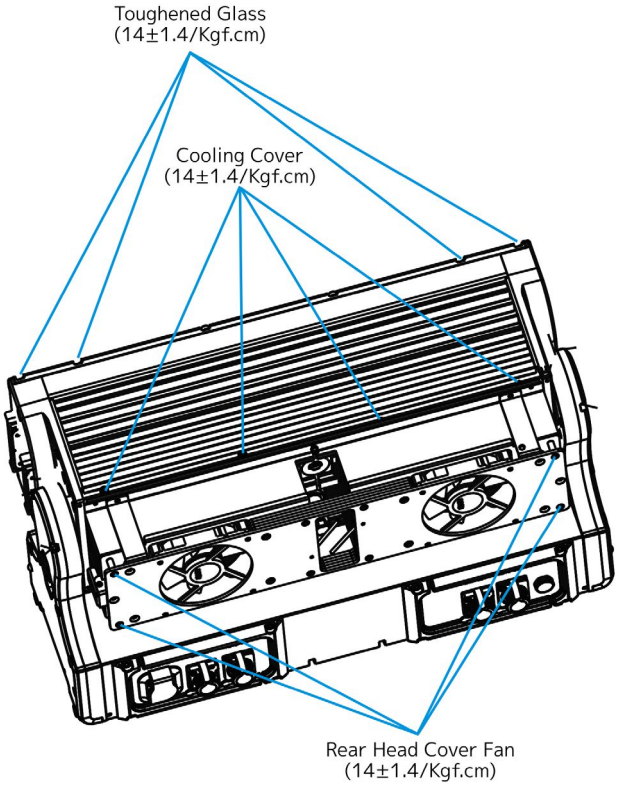
LCD Display & System Menu Controls



TORQUE SETTINGS FOR SCREWS

NO.	Name	Torque Settings/kgf.cm
1	Lamp Back Cover 2	7±0.7
2	Cooling Shell Cover Assembly	14±1.4
3	Cooling Cover	14±1.4
4	Toughened Glass	14±1.4
5	Rear Head Cover Fan	14±1.4





CAUTION! DO NOT OVER TORQUE SCREWS AS THIS CAN CAUSE LEAKAGE ISSUES!

TO CONFIRM THE IP65 INTEGRITY, TEST FIXTURE USING THE ELATION IP TESTER. CONTACT ELATION SERVICE FOR MORE DETAILS.

Elation Product	Minimum Value		Maximum Value		Steady Time (Hold Time)	Tester	Remarks
	Kpa	Psi	Kpa	Psi	S		
Proteus Rayzor Blade L/S (Same settings both units)	-17		-13		30	Elation IP Tester	Complete Unit
	13.00		17.00		30	Elation IP Tester	

IF IN THE UNLIKELY EVENT THAT A PRESSURIZED FIXTURE RESULTS IN CATASTROPHIC LENS FAILURE, EYE PROTECTION MUST BE WORN AT ALL TIMES WHEN USING ELATION IP TESTER, ESPECIALLY WITH FIXTURES FEATURING LARGE GLASS LENSES.



INSTALLATION GUIDELINES



FLAMMABLE MATERIAL WARNING

Keep fixture minimum 5.0 feet (1.5m) away from flammable materials and/or pyrotechnics.



ELECTRICAL CONNECTIONS

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



MINIMUM DISTANCE TO OBJECTS/SURFACES MUST BE 3.2 FOOT (1.0 METERS)



MINIMUM DISTANCE OF INFLAMMABLE MATERIALS FROM THE SURFACE 3.2 FEET (1.0 METER)



MAXIMUM AMBIENT TEMPERATURE 194° F (90°C)



DO NOT INSTALL THE FIXTURE IF YOU ARE NOT QUALIFIED TO DO SO!

Fixture MUST be installed following all local, national, and country commercial electrical and construction codes and regulations.

Before rigging/mounting the fixture to any metal truss/structure or placing the fixture on any surface, a professional equipment installer MUST be consulted to determine if the metal truss/structure or surface is properly certified to safely hold the combined weight of the fixture, clamps, cables, and accessories.

Overhead rigging requires extensive experience, including, amongst others, calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

Fixture ambient operating temperature range is **4° to 113°F. (-20° to 45°C)**
Do not use the fixture under or above this temperature.

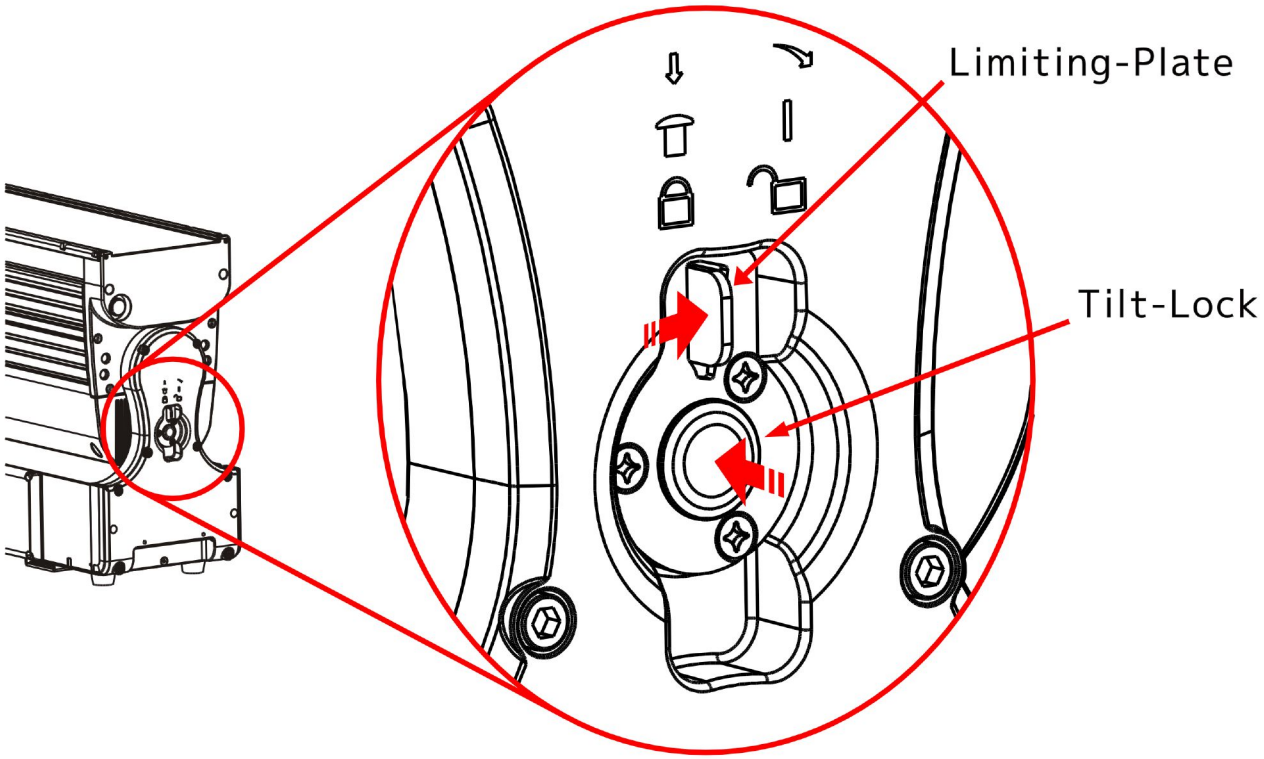
Fixture should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand.

NEVER stand directly below the fixture when rigging, removing or servicing.
Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable.

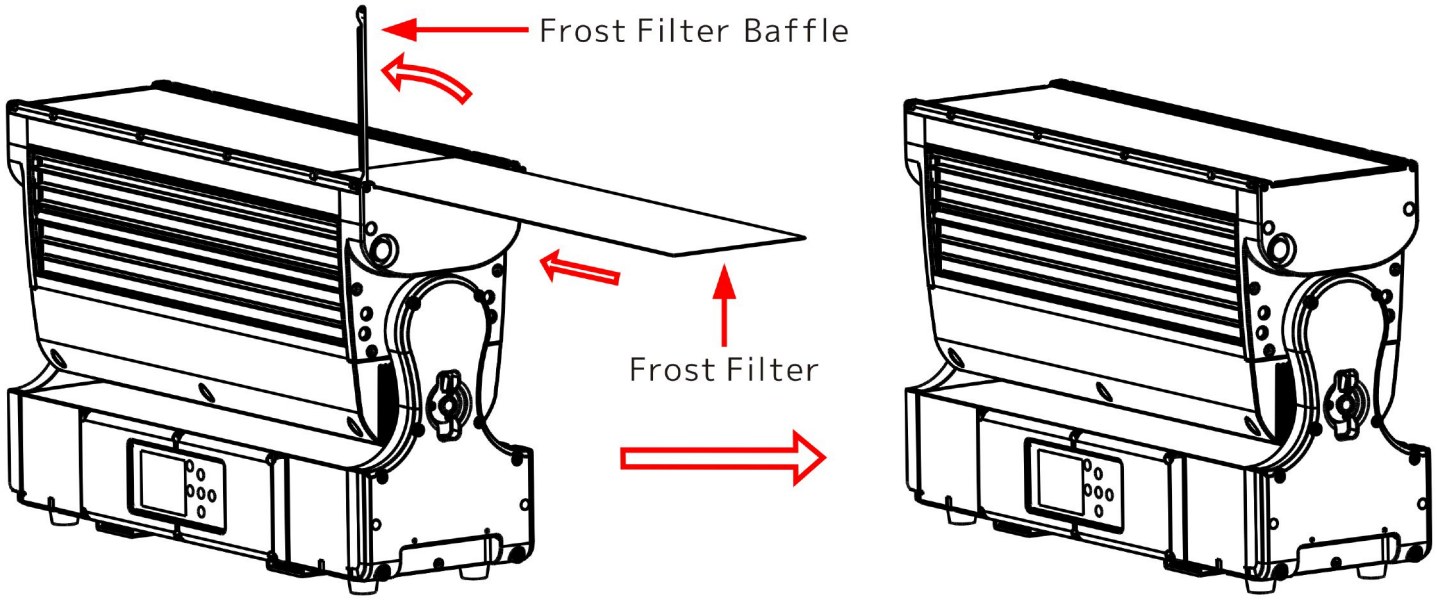
Allow approximately 10 minutes for the fixture to cool down before servicing.

INSTALLATION GUIDELINES

TILT-LOCK
To lock, press the Tilt-Lock Button until it clicks.
To Unlock, press the Limiting-Plate to the right until the Tilt-Lock button pops up.



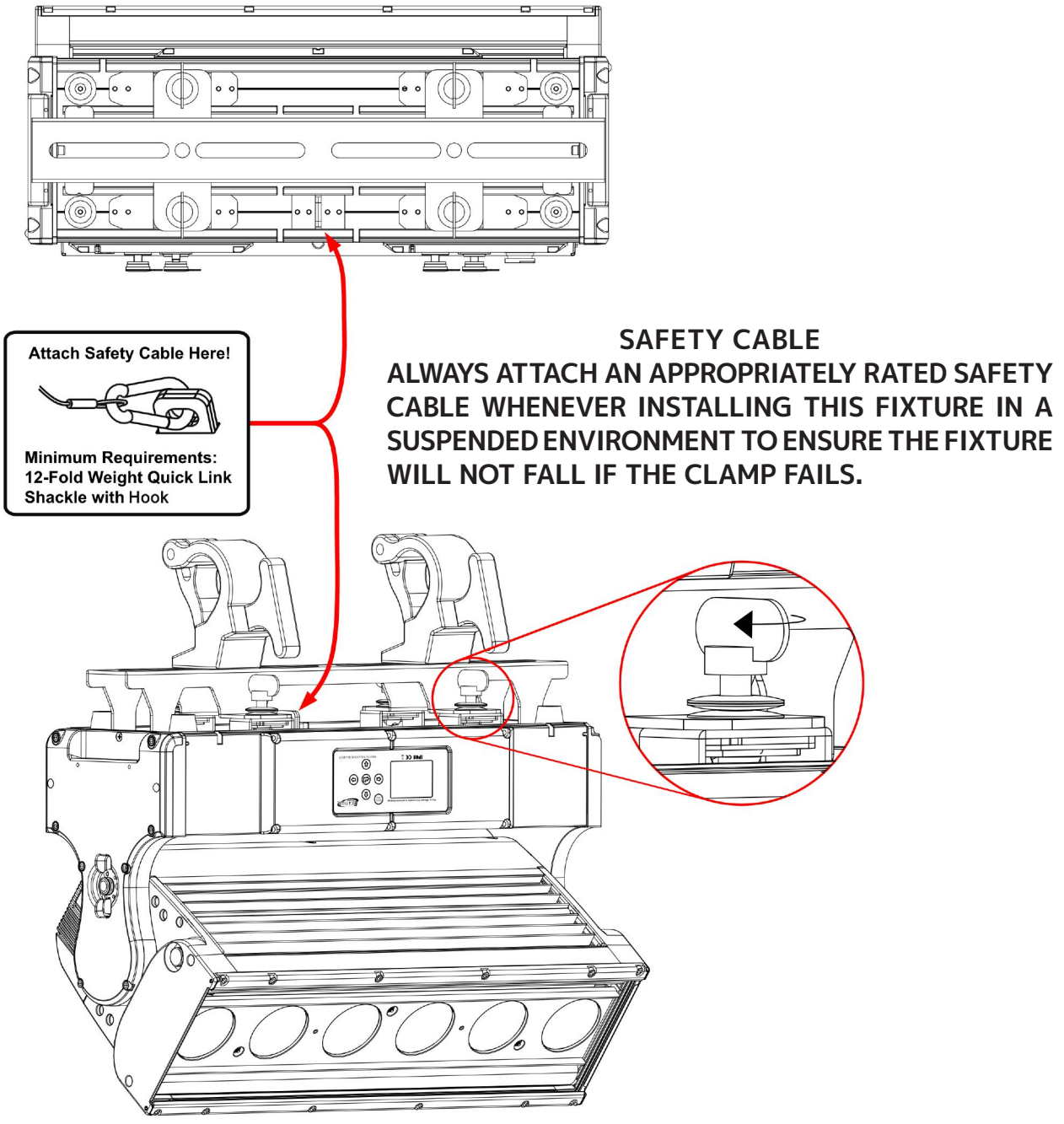
FROST-FILTER
1. Loosen the screws on both sides of the Frost-Filter Baffle and lift it away as shown below.
2. Insert the Frost Filter into the slot above the lens glass and slide it in fully.
3. Replace the Frost-Filter Baffle and tighten the screws



INSTALLATION GUIDELINES

OMEGA BRACKETS WITH CLAMP INSTALLATION

Insert the Omega Brackets into the matching holes on the bottom of the fixture. Secure the Omega Brackets to the fixture by turning each quick-lock fastener ¼ turn clockwise; making sure the fastener is completely locked. Omega Brackets can be installed into the fixture base as illustrated below.



SAFETY CABLE

ALWAYS ATTACH AN APPROPRIATELY RATED SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS.

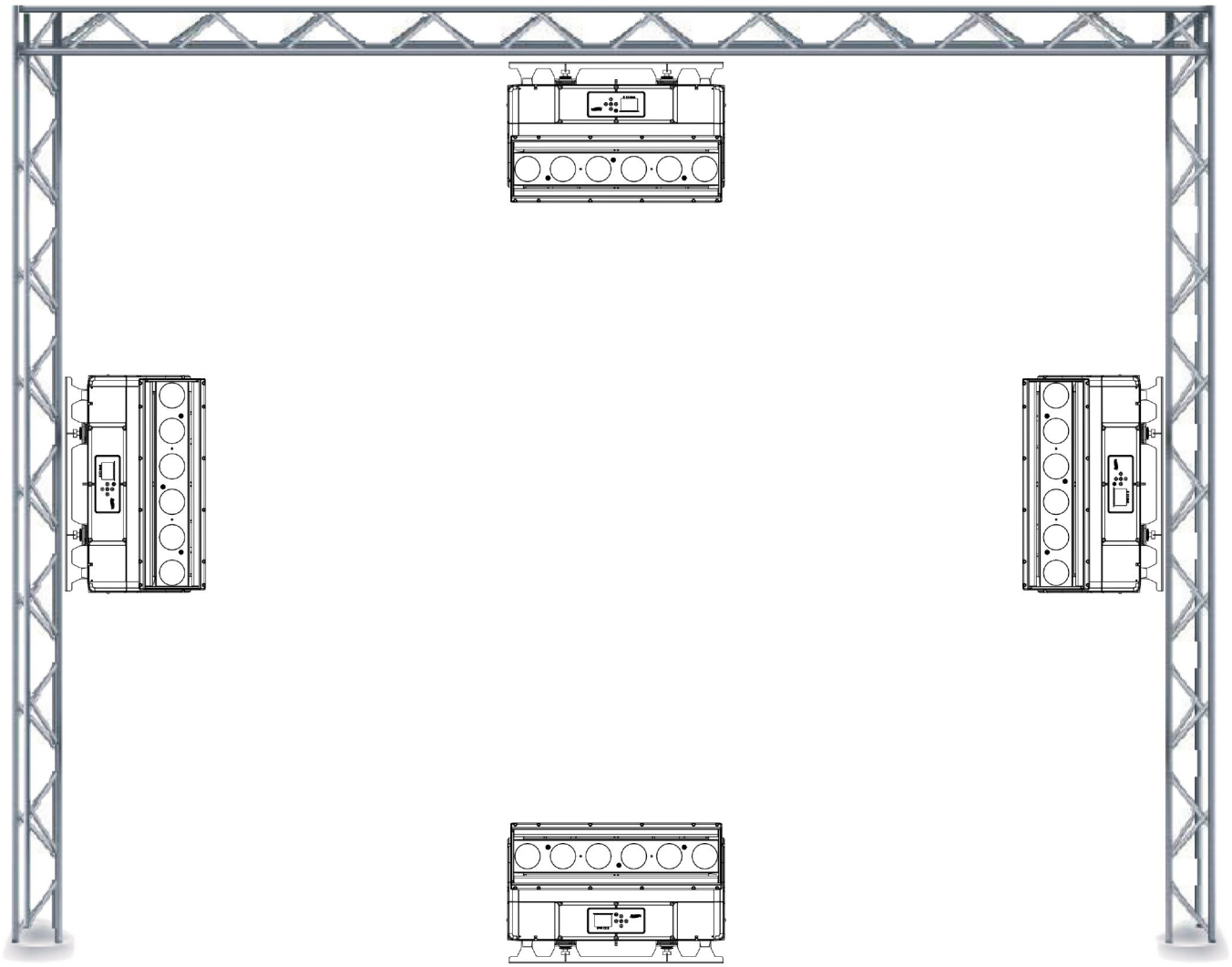
MOUNTING THE FIXTURE ON A TRUSS USING CLAMPS WITH OMEGA BRACKETS

When mounting the fixture to a truss, be sure to secure an appropriately rated professional grade rigging clamp to the included **Omega Brackets** using an M10 or M12 screw fitted through the center hole of the **Omega Brackets**. The fixture provides built-in rigging points for a **SAFETY CABLE** (not included). Be sure to only use one of the designated rigging points for the safety cable and never secure a safety cable to a carrying handle.

INSTALLATION GUIDELINES

RIGGING

Overhead rigging requires extensive experience, including among others, calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.



INSTALLATION GUIDELINES

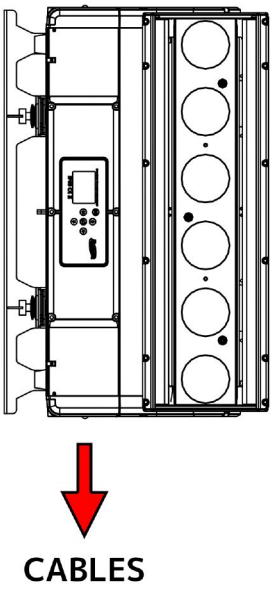
ART-NET | sACN CONNECTION

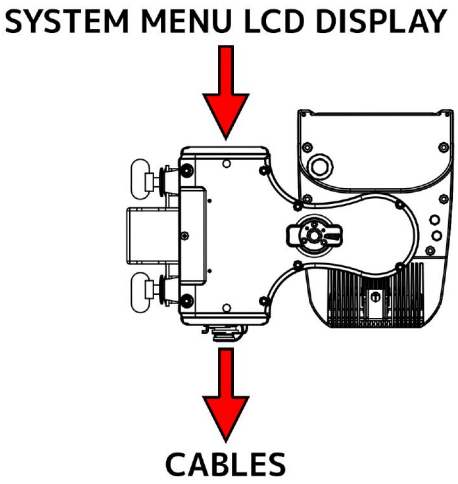
When connecting fixture to a network switch to control multiple devices, a **Gigabit Ethernet Switch** that supports **IGMP (Internet Group Management Protocol)** is required. Using a **Gigabit Ethernet Switch** that does not support **IGMP** can cause erratic behavior of all connected devices to the switch. Click link below for more information about IGMP.

https://en.wikipedia.org/wiki/Internet_Group_Management_Protocol

POWER AND DATA CABLES

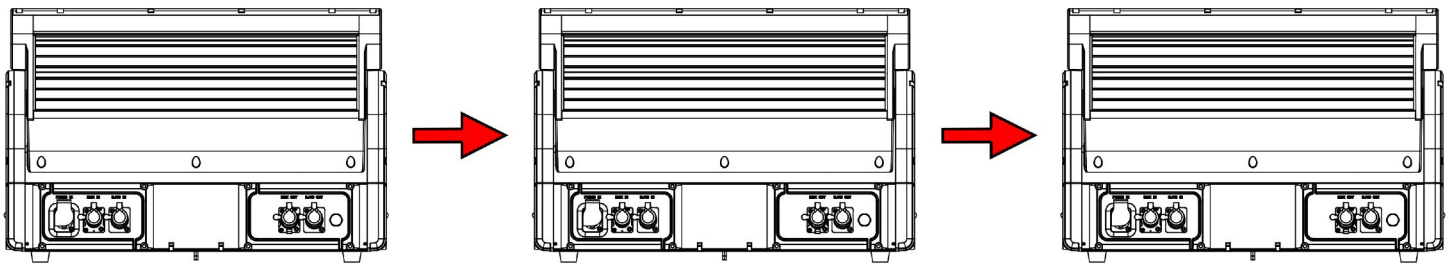
TO MAINTAIN THE IP65 RATING INTEGRITY OF THE FIXTURE, ALL CABLES MUST BE RUN TOWARDS THE GROUND TO PREVENT WATER ACCUMULATION AROUND THE CONNECTIONS.





INCLUDED RJ45 DATA CABLE

THE INCLUDED RJ45 DATA CABLE IS FOR FIXTURE TO FIXTURE INTERCONNECTION ONLY! THE RJ45 CABLE CONNECTORS MAY NOT BE COMPATIBLE WITH OTHER RJ45/ETHERCON TYPE CONNECTORS.

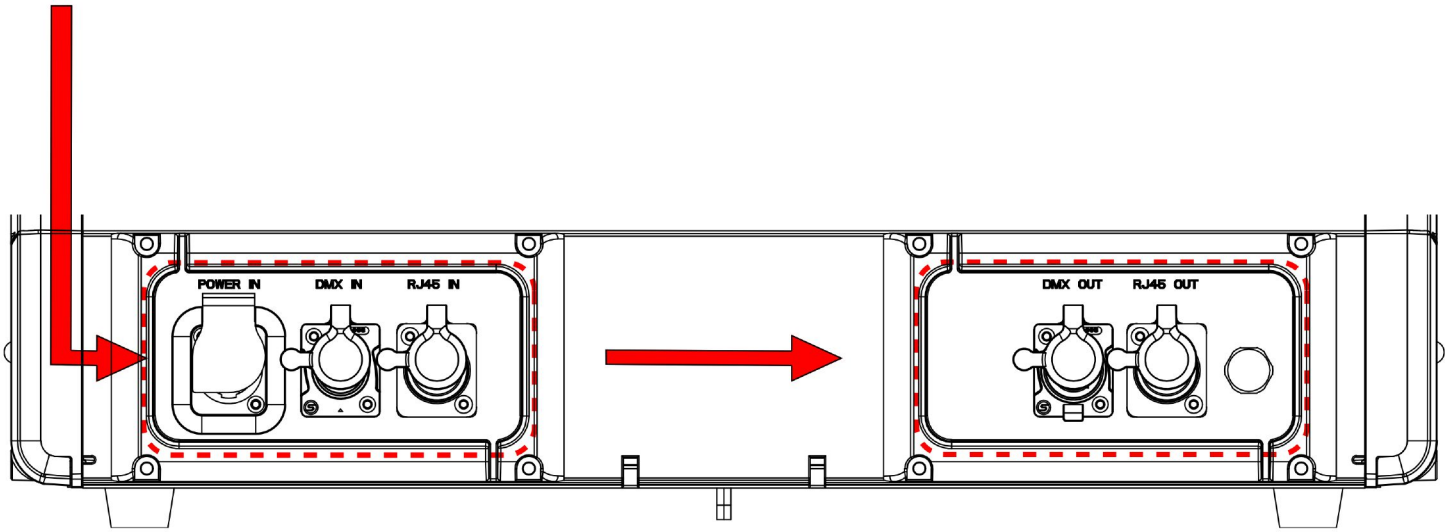


INSTALLATION GUIDELINES

POWER AND DATA CABLES

ENSURE ALL CONNECTIONS AND ENDCAPS ARE PROPERLY SEALED WITH DIELECTRIC GREASE (AVAILABLE AT MOST ELECTRICAL SUPPLIERS) TO PREVENT WATER CORROSION AND/OR ELECTRICAL SHORT CIRCUIT.

TO MAINTAIN THE IP65 RATING INTEGRITY OF THE FIXTURE AND PREVENT WATER FROM ENTERING THE FIXTURE, SEAL ALL UNUSED CONNECTION RUBBER CAPS.



INSTALLATION GUIDELINES

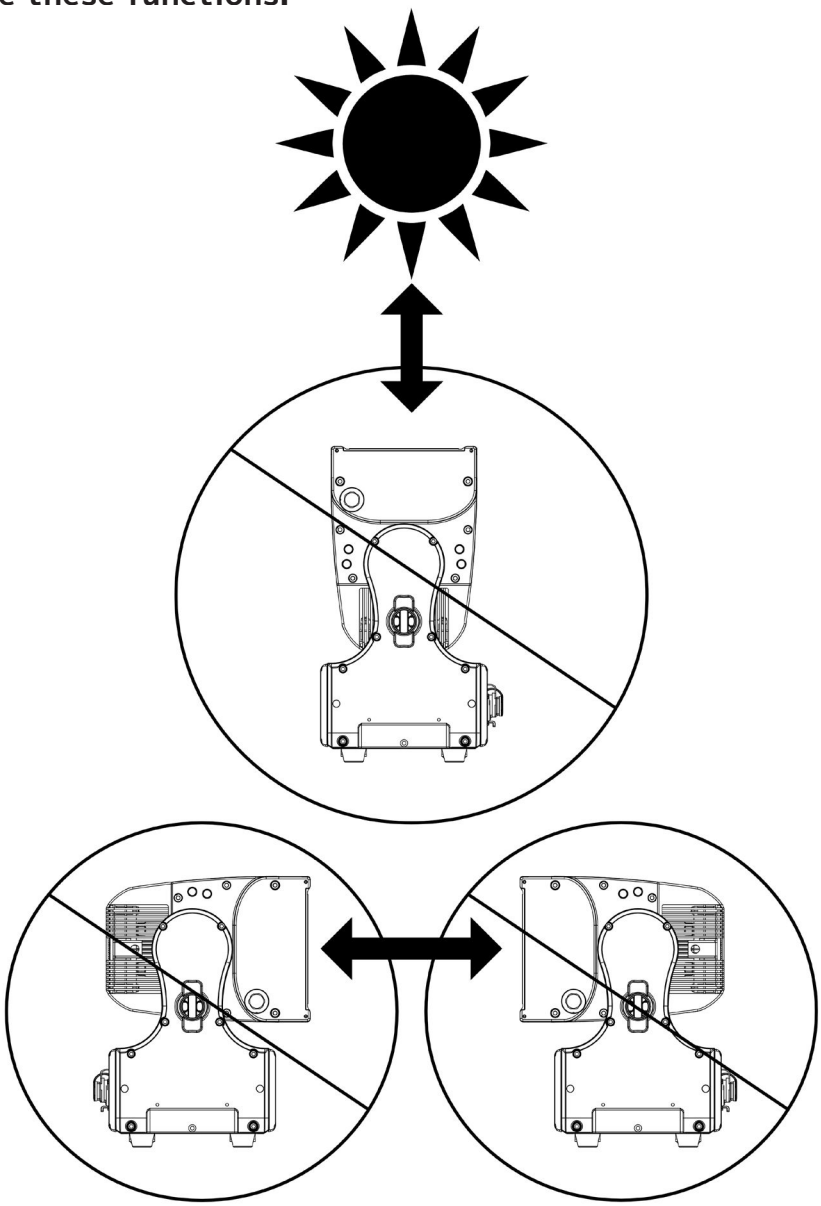
POTENTIAL INTERNAL FIXTURE DAMAGE FROM EXTERNAL SOURCES OF LIGHT BEAMS

External sources of light beams from direct sunlight, lighting moving head fixtures, and lasers, which are focused directly towards the exterior housing and/or penetrate the front lens opening of ELATION lighting fixtures, can cause severe internal damage including burning to optics, dichroic color filters, glass and metal gobos, prisms, animation wheels, frost filters, iris, shutters, motors, belts, wiring, discharge lamps, and LEDs.

This issue is not specific only to ELATION lighting fixtures, it is a common issue with lighting fixtures from all manufacturers. Although there is no true way to fully prevent this issue from happening, the guidelines below can prevent any potential damage from occurring if followed. Contact ELATION Service for more details.

DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING MOVING HEAD FIXTURES, AND LASERS WHILE UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.

Note: See 'DMX Traits: Fixture' table on page 30 under 'Control' for channel values to engage or disengage these functions.



INSTALLATION GUIDELINES

SUN PROTECTION MODE

The fixture incorporates an automatic protection from harmful sunlight, which can damage a fixture's internal components from extended exposure. Fixtures use an internal sensor to determine their physical orientation, then reorient the fixture towards the ground to prevent sunlight from entering the lens.

This automatic feature only works when the fixture is powered. If the fixture is unpowered during setup, it is necessary to manually reorient the lenses away from the sun, and aim them towards the ground. Even a few minutes of sun exposure can cause damage inside the fixture.

The Sun Protection setting is accessed via the "No DMX Status" menu.

The automatic sun protection positioning is activated under the following conditions:
1. Power on without DMX signal: the fixture always starts in sun protection mode.
2. No DMX Status "Sun Protection": the fixture enters sun protection mode after approximately 3 minutes.
3. Remote DMX control: the sun protection position can be **temporarily** activated from the lighting console without the need to create a custom position preset. The fixture senses the correct ground orientation. This means that fixtures already facing the ground may not move their heads.

Hold "Sun Protect Position" for 3s to set the fixture to the sun protection position.

Sun protection status displays as "**Sun Protection: Active**".

The sun protection position deactivates under the following conditions:
1. Connect DMX signal.
2. Remote DMX control: Hold "Sun Protection Off" for 3s.

To avoid harsh or jarring movements, the sun protection position always uses a 5-second fade time when it is activated or deactivated.

HIBERNATION MODE

To reduce wear on the fixture and its components, this mode disables motors and most electronics. Set the hibernation mode countdown time in the Display Menu: "Status Settings / Personality / Hibernation". Hibernation can be fully disabled.

The hibernation mode activates under the following conditions:
1. Loss of DMX: the fixture enters hibernation after the timeout expires. Default is 15 minutes.
2. Remote DMX control: Hold "Hibernate Fixture" for 3s

The hibernation mode deactivates under the following conditions:
1. Connect DMX Signal
2. Remote DMX control: Hold "Hibernate Off" for 3s

The fixture will perform a full calibration cycle, then assume the current DMX status.

Please note that the Hibernation does not change the PT position of the fixtures, allowing the user to set the desired position and then issue the Hibernate command.

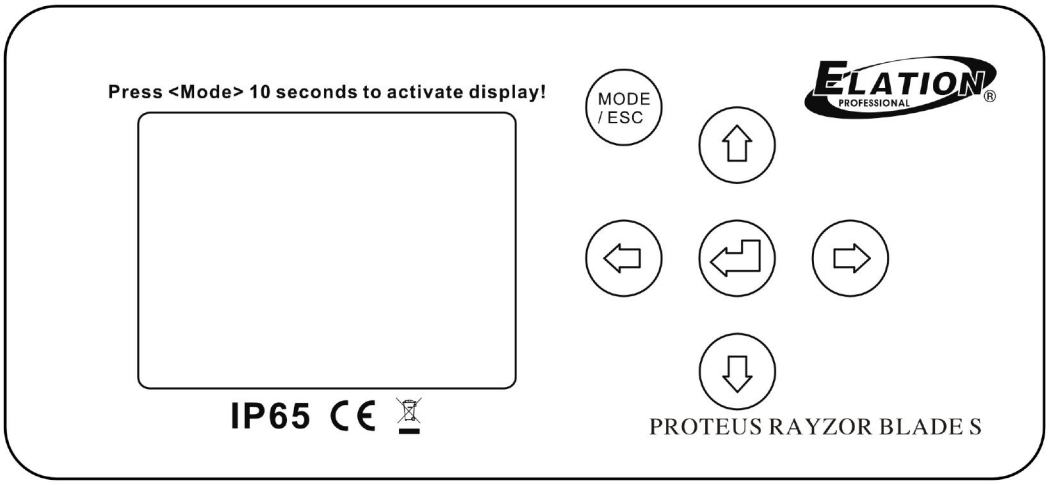
To ensure the fixture is protected from harmful sunrays it is recommended to either leave the "No DMX Status" in "Sun Protection" (so the fixture is already in the correct position after 3 minutes of DMX loss) or set the fixture to a safe Tilt position manually first before hibernation.

Burn and heat damage to the fixture's interior components due to external light sources (sun or other fixtures shining into the lens) is never covered under the manufacturers warranty.

SYSTEM MENU

The fixture includes an easy to navigate system menu. The control panel (see image below) located on the front of the fixture, provides access to the main system menu and is where all necessary system adjustments are made to the fixture. During normal operation, pressing **MODE/ESC** 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 **MODE/ESC** button for 10 seconds. The LCD Menu Control Display will shut **OFF** automatically about 1 minute from the last button press.



SYSTEM MENU

ELATION PROTEUS RAYZOR BLADE S				
MAIN MENU	**OPTIONS / VALUES** (Default Settings in **BOLD**)			**DESCRIPTION**
Function	Set Dmx Address	A001~AXXX		DMX Address Setting
	Dmx Value	ALL……		DMX Value Display
	Secondary Mode	Secondary1, Secondary2, Secondary3		Secondary Setting
	Auto Program	Primary / Alone		Auto Program
Information	Time Information	Current Time	XXXX(Hours)	Power On Running Time
		Total Run Time	XXXX(Hours)	Fixture Running Time
		Last Run Time	XXXX(Hours)	Fixture Last Times Clear
		LastRun Password	Password=XXX	Timer Password (**038**)
		Clear Last Run	ON/**OFF**	Clear Fixture Last Time
	Temperature Info	LED Temperature	XXX℃/℉	Temperature in LED
		Head Temperature	XXX℃/℉	Temperature in Head
		Base Temperature	XXX℃/℉	Temperature in Base
	Humidity Info	Head Humidity	XXX%	Humidity in Fixture
		Base Humidity	XXX%	Humidity in Base
	Ethernet IP	Ethernet IP XXX. XXX. XXX. XXX XXX. XXX. XXX. XXX		Ethernet IP
	Fan Info	HeadFan1: xxxx RPM ……		Fan information
	Software Version	1U01: Vx.x.x 2U01: Vx.x.x :		Software Version
	Error Info	Error Record 1 Error Record 2 … … Error Record 10		TILT.... TILT.... … … TILT....
Personality	Status Settings	Address Via DMX	**ON**/OFF	Address Via DMX
		No DMX Status	Close/**Hold**/Auto	Auto Run If No DMX
			Sun Protection (default)	The fixture moves to the sun protection position after 3 minutes
			Close	The fixture turns off the light output
			Hold	The current fixture state is held until power off or DMX is resumed
			Autoprogram	The fixture recalls the internal auto program
		Tilt Reverse	ON/**OFF**	Tilt Reverse movement
		Zoom Speed	**Fast**/Slow	Zoom speed mode
		Feedback	**ON**/OFF	Movement Feedback
		Hibernation	OFF, 01M~99M, **15M**	Standby Mode
	Service Setting	Password	Password=XXX	Password (**050**)
		Clear Err. Info	ON/**OFF**	Clear Err. Info
	Fans Control	**Auto**/ High/ Silent / Sudio / Mute		Fans Control
	Display Setting	Shutoff Time	02~60m **05m**	Display Shut Off Time
		Display Reverse	OFF/ON/**AUTO**	Reverse 180 degree
		Key Lock	**ON**/OFF	LCD Control Panel Key Lock

SYSTEM MENU

ELATION PROTEUS RAYZOR BLADE S				
MAIN MENU	**OPTIONS / VALUES** (Default Settings in **BOLD**)			**DESCRIPTION**
Personality	Temperature C/F	Celsius		Temp C/F
		Fahrenheit		
	Initial Status	TILT=XXX		Initial effect position
	Select Signal	**DMX Only**		Select Signal
		Art-Net		
		sACN		
	Klingnet	ON/**OFF**		Klingnet
	Ethernet IP	XXX. XXX. XXX. XXX		Ethernet IP
	Ether Mask IP	XXX. XXX. XXX. XXX		Ether Mask IP
	Set Universe	000~32767		Setting Art-Net Universe
	DHCP	ON/**OFF**		Automatically assign IP address
	Dimmer Mode	**Standard**		Dimmer Mode
		Stage		
		TV		
		Architectural		
		Theatre		
		Stage2		
		Delay 0s, 0.1s, 0.2s, ..., 10s		
	Refresh	**1200**, 900-1500, 2500, 4000, 5000, 6000, 10000, 15000, 20000, 25000(Hz)		Refresh Frequency Rate Setting
	DimmerCurve	**Linear**, Square, Inverse Square, S-Curve		DimmerCurve Setting
	Reset Default	**ON**	PassCode=XXX	Restore factory settings Password (**011**)
		Off		
Reset Function	Reset All			Reset Function
	Reset Tilt			
	Reset Others			
Effect Adjust	Test Channel	TILT=XXX		Test function
	Manual Control	TILT=XXX :		Manual Control function
	Calibration	Calibrate Password, Password=XXX TILT=XXX :		Password (**050**) Calibrate and adjust the effects to standard/right position
User Mode	User Mode	**Standard**, Pixels, Pixel Plus, Extended		Standard channel mode RGBW main LED pattern Extended channel mode
Edit Program	Select Program	Auto Pro Part 1 = Program 1~10 **Program 1**		Select Programs To Be Run
		Auto Pro Part 2 = Program 1~10 **Program 1**		
		Auto Pro Part 3 = Program 1~10 **Program 1**		
	Edit Program	Prog 1 : Prog 10	ProgTest	Testing Program
			Step 01=SCxxx	Program In Loop
			Step 64=SCxxx	Save and Exit
	Edit Scenes	Edit Scene 001 to Edit Scene 250	Tilt, ... - Fade Time - - Scene Time - Input By Out	Save and Automatically Return Manual Scenes Edit
	Rec. Controller	XX~XX		Automatic Scenes Recorder

SYSTEM MENU

FUNCTION-Auto Program

Define fixture mode (**Primary** or **Alone**) for running Auto Programs. Select desired internal programs under "**Select Program**", set the number of steps under "**Edit program**", and edit individual scenes under "**Edit Scenes**".

PERSONALITY-Status Settings-Address Via DMX

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

NOTE: This process assumes the fixture DMX address is set to 001. If fixture DMX address is not at 001, you must adjust the channel numbers accordingly in order for this feature to work.

For example: if your fixture address is 010, then Channel 1 becomes Channel 10, Channel 2 becomes Channel 11, and Channel 3 becomes Channel 12.

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 approximately 20 seconds for the fixture to complete the address reset function.

PERSONALITY-Service Settings-Password (050)

NOTE: The Service Password MUST be entered in order to access the following menus: Clear Err. Info .

PERSONALITY-Display Setting-Key Lock

When ON, Control Panel buttons lock automatically after exiting main menu for 15 seconds. To unlock, keep **MODE/ESC** button pressed for 3 seconds.

PERSONALITY-Dimmer Curve

SYSTEM MENU



ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION!
NOTE: SAVED WHITE BALANCE IS ERASED AFTER A RESET IS PERFORMED!

This function restores all fixture settings to the factory default settings. The password is 011 and must be entered each time a reset is performed.

EFFECT ADJUST-Test Channel

Auto test each individual channel function independently from the DMX control board.

EFFECT ADJUST-Manual Control

Select and manually test and fine adjust each individual channel function Independently from DMX control board. This function will center PAN and TILT motors and set dimmer to 100%. PAN and TILT functions will still operate if the fixture needs to be positioned to a flat clear surface. With the individual functions, you can focus the light on a flat surface (wall) and perform fine adjustments.



EFFECT ADJUST-Calibration
ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION.

This function allows small adjustments to be made to the Pan, Tilt, and Zoom movements to compensate for ware 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.

USER MODE SET-Edit User Mode

Create user defined channel orders allowing the fixture to match the channel order of other fixtures on the market for easier operation. A total of three user modes may be configured: User Mode A, User Mode B, and User Mode C.

EDIT PROGRAM-Rec. Controller

The fixture features an integrated DMX-recorder by which you can transmit the programmed scenes from your DMX-controller to the moving head. Adjust the desired scene numbers via the encoder (from – to). When you call up the scenes at your controller, they will automatically be transmitted to the moving head.

SYSTEM MENU

EDIT PROGRAM-Record Controller-Working With Built-In Programs

A Primary unit can send up to 3 different data groups to the Secondary units, i.e. a Primary unit can start 3 different Secondary units, which run 3 different programs. The Primary unit sends the 3 program parts in a continuous loop.



The Secondary unit receives data from the Primary unit according to the group which the Secondary unit was assigned to. If e.g. a Secondary unit is set to "**Secondary 1**" in the menu "**Set to Secondary**", the Primary unit sends "**Auto Program Part 1**" to the Secondary unit. If set to "**Secondary 2**", the Secondary unit receives "**Auto Program Part 2**".
To start an Auto Program proceed as follows:

1. S**econdary Setting**
- Select "**Function Mode**".
- Press **ENTER** to confirm.
- Select "**Set to Secondary**".
- Press **ENTER** to confirm.
- Select "**Secondary 1**", "**Secondary 2**" or "**Secondary 3**".
- Press **ENTER** to confirm.
- Press **MODE/ESC** in order to return to the main menu.

2. Automatic Program Run
- Select "**Function Mode**".
- Press **ENTER** to confirm.
- Select "**Auto Program**".
- Press **ENTER** to confirm.
- Select "**Primary**" or "**Alone**".
- Press **ENTER** to confirm.
- Press **MODE/ESC** in order to return to the main menu.

3. Program Selection for Auto Pro Part
- Select "**Edit Program**".
- Press **ENTER** to confirm.
- Select "**Select Programs**".
- Press **ENTER** to confirm.
- Select "**Auto Pro Part 1**", "**Auto Pro Part 2**" or "**Auto Pro Part 3**", and select which Secondary program is to be sent. Selection "**Part 1**" means, that the Secondary unit runs the same program as the Primary units.
- Press **ENTER** to confirm.
- Press **MODE/ESC** in order to return to the main menu.

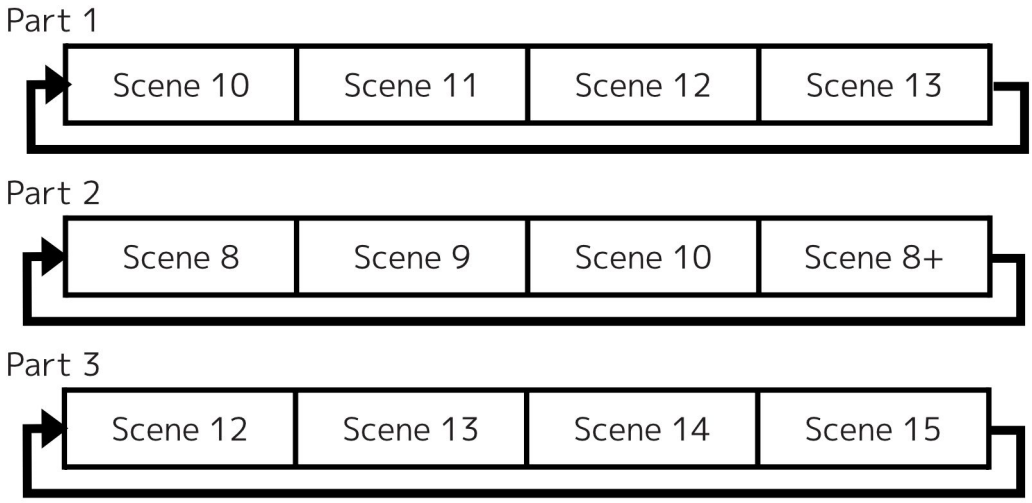
4. Program Selection for Edit Program
- Select "**Edit Program**".
- Press **ENTER** to confirm.
- Select "**Edit Program**".
- Press **ENTER** to confirm.
- Select the desired program to edit specific scenes into a specific program.
- Press **ENTER** to confirm.
- Press **MODE/ESC** in order to return to the main menu.

5. Automatic Scene Recording
- Select "**Edit Program**".
- Press **ENTER** to confirm.
- Select "**Edit Scenes**".
- Press **ENTER** to confirm.
- Select desired scene numbers. A maximum of 250 scenes can be programmed.
- Press **ENTER** to confirm.
- Press **MODE/ESC** in order to return to the main menu.

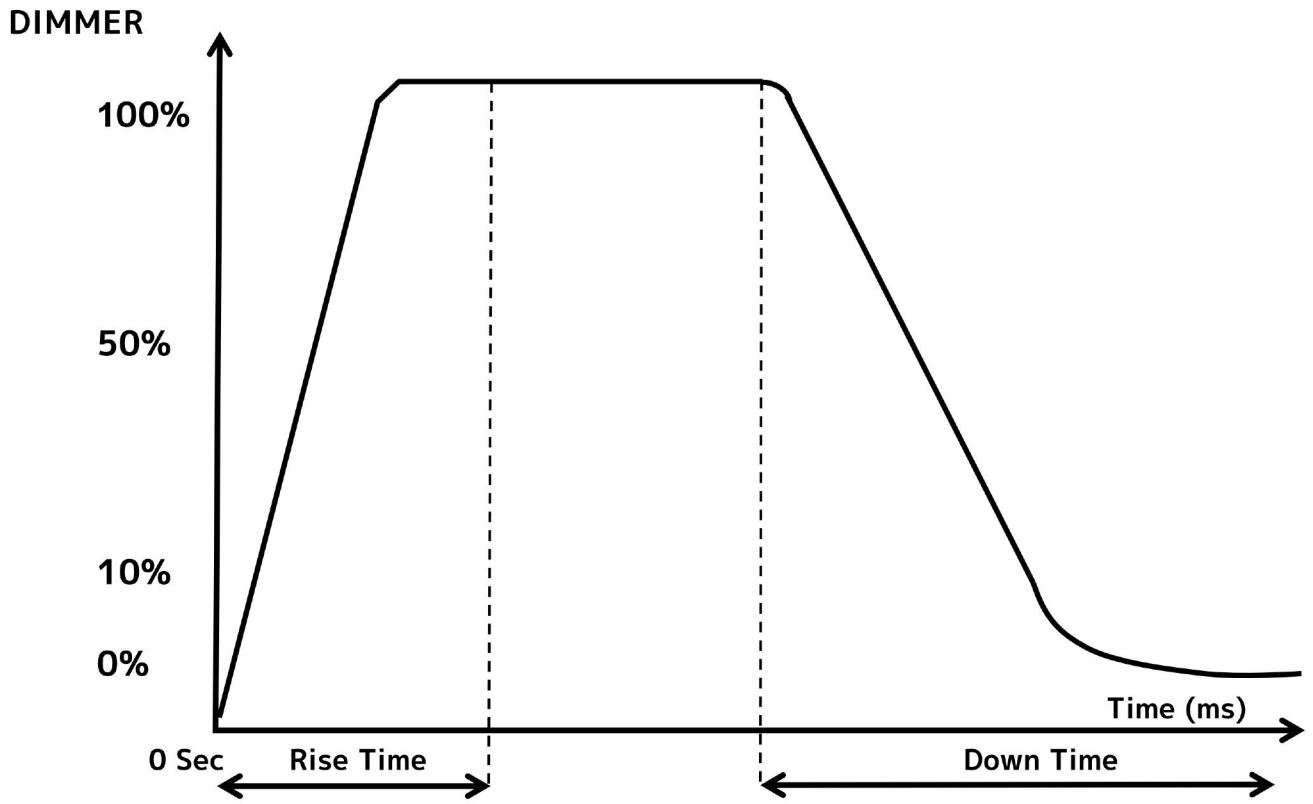
EDIT PROGRAM-Record Controller-Working With Built-In Program [continued]

Example:
Program 2 includes scenes: 10, 11, 12, & 13
Program 4 includes scenes: 8, 9, & 10
Program 6 includes scenes: 12, 13, 14, & 15
Auto Pro Part 1 is Program 2
Auto Pro Part 2 is Program 3
Auto Pro Part 3 is Program 6

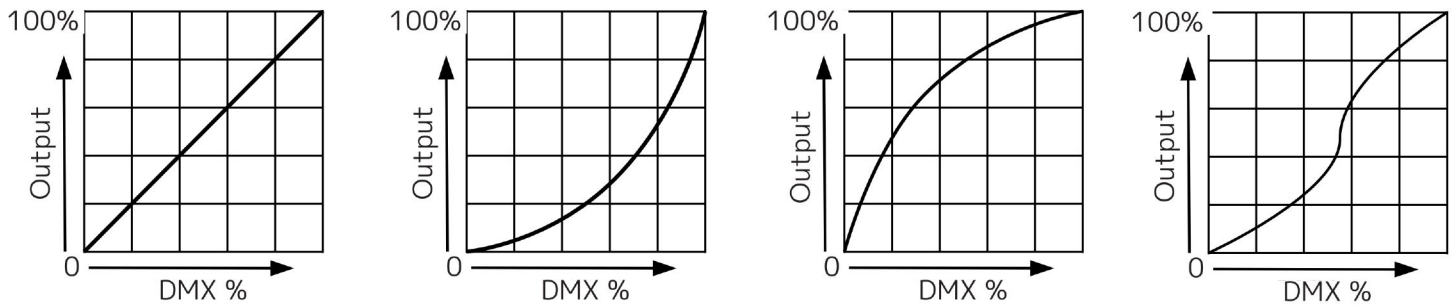
The 3 Secondary groups run the Auto Program in certain time segments.



DIMMER MODE GRAPHS



Dimming Curve Ramp Effect	0 sec Fade Time		1 sec Fade Time	
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)
Standard (default)	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural-	1380	1730	2040	2120
Theatre	1580	1940	2230	2280
Stage 2	0	1100	0	1660



PATCHING AND FX PROGRAMMING GUIDE

The Proteus Rayzor Blade S is a versatile fixture that combines three unique fixtures into one chassis. The DMX layout is designed to offer a variety of options for controlling the fixture efficiently, allowing control of many FX with very few channels, or providing full access of all elements for external pixel mappers.

The FX system of the Proteus Rayzor Blades allows many different combinations by changing the curves, offsets, and speed parameters. The RGBW, SparkLED, and StrobeLine systems are separate, and by adjusting color, dimming, and strobe channels, there are endless creative designs possible.

The main fixture contains 6x 60W RGBW cells, while the SparkLED fixture contains 4x2W white LEDs per LED. Two dazzling StrobeLines are added to the edge of the fixture, with 16 elements per side.

For ease of use, the DMX layout is arranged to allow the lighting console to separate the fixture into multiple segments, or parts. It is important to arrange the fixture into the required parts as outline in the DMX table. For simpler programming, the Blade also offers reduced channel modes. However, for easy recall of interesting pixel animations, the fixture contains three independent FX systems for Main, SparkLED, and StrobeLine FX.

Fixture Parts
To control the fixture, a console fixture profile must combine parameters into the correct parts, otherwise, programming of the three layers is very difficult. Please use the part names shown in the DMX table. Please use the part names shown in the DMX table.

Main	RGBW Dimmer, Strobe, Pan, Tilt, Main FX Controls, FX Sync
Pixels	Red, Green, Blue, White per cell
StrobeLine	StrobeLine Dimmer, Strobe, Duration, StrobeLine FX Controls
Strobe	StrobeLine Dimmer per pixel
SparkLED	SparkLED Dimmer, Strobe, SparkLED FX Controls
LED	Sparkled Dimmer per pixel

The number of parts depends on the selected DMX mode of the fixture. Depending on console type and application, it may be useful to have all parts as sub fixtures, or create completely separate fixture types for Main, StrobeLine, and SparkLED with their own smaller subset of fixture parts.

Strobe and Dimmer Sync
For effective programming, it may be helpful to have dimming and strobing of all parts in perfect sync. This can be accomplished by setting the strobe channel of the SparkLEDs or StrobeLines to DMX value 255. It forces dimming and strobing to follow the parameters of the main fixture.

255	**Sync Dim and Strobe with Main**

The highest output strobe of the Proteus Rayzor Blade L is achieved by synchronizing the StrobeLine and RGBW cells. It provides a rare combination of a focused beam, or wide wash with the dazzling white strobing edges of the fixture.

PATCHING AND FX PROGRAMMING GUIDE

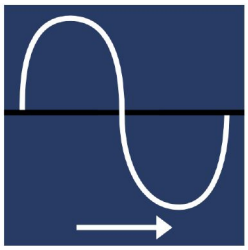
FX Concept

Selection and control of integrated FX on the Rayzor Blade are found in the Main, SparkLED and StrobeLine Parts. All FX are available even in the smallest DMX control mode.

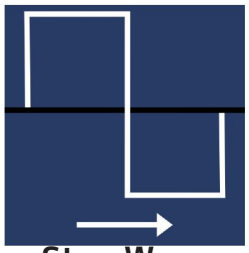
	RGBW FX (see table)
0-255	FX Selection 1 -255
	RGBW FX Speed
0 – 126	Rev Fast → Slow
127 – 128	Stop
129 – 255	Slow → Fast
	SparkLED FX (see table)
0-255	FX Selection 1 -255
	SparkLED FX Speed
0 – 126	Rev Fast → Slow
127 – 128	Stop
129 – 255	Slow → Fast

FX for RGBW, SparkLED and StrobeLine contain a selection channel to recall the desired pattern. The pattern direction and speed is then adjusted using the associated Speed channel. FX can run forward / backward and can also be frozen at any time by using “Stop”.

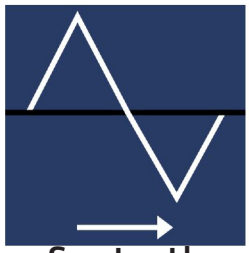
The FX table shows the available patterns which are grouped for easier browsing. The first 10 DMX steps of the FX channel are used to change the type of curve for smooth or stepped FX. Once a curve is selected its used for all FX recalled afterwards. When programming cues for fixtures the user must ensure to change the curve first before selecting the pattern. The fixture defaults to the Sinewave pattern after every power cycle.



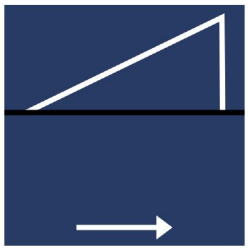
Sine Wave



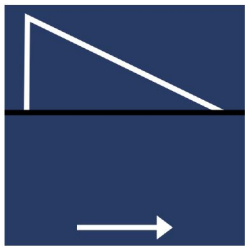
Step Wave (Square)



Sawtooth Wave



Ramp Up Wave



Ramp Down Wave

In addition to the fx direction and speed a Sync channel allows to offset or randomize the fixtures or FX steps.

	FX Offset
0	Idle
1	Fixture Offset 10 Degree
2	Fixture Offset 20 Degree
3-34	Fixture Offset...
35	Fixture Offset 350 Degree
36	Synchronized
3-100	No Function
101–120	Random Fixture Offset
121-140	Random Pixel Order
141-255	Random Steps

PATCHING AND FX PROGRAMMING GUIDE

A full FX cycle is 360-degrees and the fixture allows offsets in 10 degree increments. Offsetting a fixture by 180 would mean it is exactly halfway ahead through the FX cycle. Through individual offsets or utilizing lighting consoles fan functions the fixture allows a variety of spreads for impactful FX.

Three randomization options are provided:

Random Fixture Offset: Every fixture randomly selects any of the 36 offset points. It will then use this until the offset is changed or random offset is selected again.

Random Pixel Order: The actual FX steps are randomized. This shuffling of the fixture order is done once, the fixture will use this shuffled order across all FX until changed.

Random Steps: Every step is randomly chosen every time, giving the most random looks possible. To reshuffle the randomization set the channel to Idle, then reselect the desired random option.

Blade L Strobe Mapping

The fixture offers several ways to map the StrobeLines depending on alignment with Blade S or to change the desired FX mapping across the strobe edge. For perfect match of distances, the L fixture contains 33 cells. The alignment can be selected in the StrobeLine FX channel.

DMX	Pixel Alignment	
250	Full	All elements are used, FX have the same speed from pixel to pixel
251	Full Sync	All elements are used, FX have the same speed across the S and L width
252	Split	The Center Element is disabled, all FX act identical as Blade S in two sections
253	Left	Elements start at the left edge, with a gap at the right
254	Right	Elements start at the right edge, with a gap at the left

The FX system of the Proteus Rayzor Blades allows many different combinations by changing the curves, offsets, and speed parameters. The RGBW, SparkLED, and StrobeLine systems are separate, and by adjusting color, dimming, and strobe channels, there are endless creative designs possible.

DMX TRAITS: MAIN FIXTURE

Features subject to change without notice

MODE/CHANNEL					VALUE	FUNCTION	FADE STATUS	DEFAULT
FIXTURE CONTROL PART/NAME	STANDARD 27CH	PIXEL 50CH	PIXEL PLUS 82CH	EXTENDED 106CH				
MAIN	1	1		1		**Tilt**	Fade	127
					0-255	Movement		
	2	2		2		**Tilt Fine**	Fade	127
					0-255	Fine Movement		
	3	3		3		**CTC**	Face	0
					0–10	Disabled		
					11–171	Color Temperature 2000K to 10000K		
					172-255	10000K		
	4	4	4	4		**Color Wheel**	Snap	0
					0 – 9	Open		
					10-14	Red		
					15-19	Red Orange		
					20-24	Light Amber		
					25-29	Yellow Amber		
					30-34	Greenish Yellow		
					35-39	Light Yellow Green		
					40-44	Dark Yellow Green		
					45-49	Green		
					50-54	Teal		
					55-59	Cyan		
					60-64	Light Blue		
					65-69	Aqua		
					70-74	Dark Aqua		
					75-79	Green Blue		
					80-84	Light Lavender		
					85-89	Dark Purple		
					90-94	Medium Purple		
					95-99	Mid Rose		
					100-104	Mauve		
					105-109	Nice Magenta		
					110-114	Warm Magenta		
					115-119	Light Red		
					120-124	Straw		
					125-129	Dark CTB		
					130-134	Light Green		
					135-139	Purple		
					140-144	Lighter Purple		
					145-149	Pink		
					150-154	Rose		
					155-159	White		
					160-164	TBD		
					165-169	TBD		
					170-174	TBD		
					175-179	Open		
						Color Scroll		
					180-201	Clockwise,fast→slow		
					202-207	Stop		
					208-229	Counter-clockwise,slow→ fast		
					230-234	Open		
						Random Slots		
					235-239	Fast		
					240-244	Medium		
					245-249	Slow		
					250-255	Open		

DMX TRAITS: MAIN FIXTURE

Features subject to change without notice								
MODE/CHANNEL					VALUE	FUNCTION	FADE STATUS	DEFAULT
FIXTURE CONTROL PART/ NAME	STANDARD 27CH	PIXEL 50CH	PIXEL PLUS 82CH	EXTENDED 106CH				
MAIN	5	5	5	5		**Strobe**	Snap	50
					0-31	Shutter closed		
					32-63	Shutter open		
					64-95	Strobe (slow → fast) 0.289-16.67 Hz		
					96-127	Fast Close, Slow Open		
					128-159	Fast Open, Slow Close		
					160-191	Pulse Effects		
					192-223	Random Strobe (slow → fast)		
					224-255	Shutter open		
	6	6	6	6		**Dimmer**	Fade	0
					0-255	0 → 100%		
	7	7	7	7		**Dimmer Fine**	Fade	0
					0-255	Fine Dimming		
	8	8	8	8		**Dim Modes**	Snap	0
					0-20	Standard		
					21-40	Stage		
					41-60	TV		
					61-80	Architectural		
					81-100	Theatre		
					101- 120	Stage 2		
						Dimmer Delay Time		
					121	0s		
					122	0.1s		
					123	0.2s		
					124	0.3s		
					125	0.4s		
					126	0.5s		
					127	0.6s		
					128	0.7s		
					129	0.8s		
					130	0.9s		
					131	1.0s		
					132	1.5s		
					133	2.0s		
					134	3.0s		
					135	4.0s		
					136	5.0s		
					137	6.0s		
					138	7.0s		
					139	8.0s		
					140	9.0s		
					141	10s		
					142-255	Idle		
	9	9	9	9		**Zoom**	Fade	0
					0-245	Zoom Wide → Narrow		
					246-255	Overdrive Min → Max		
		10	10	10		**Zoom Fine**	Fade	0
					0-255	Fine Zoom		
		11	11	11		**Tilt Speed**	Snap	0
					0-225	Max to Min speed		
					226-235	Blackout while moving		
					236-255	No function		

DMX TRAITS: MAIN FIXTURE

Features subject to change without notice

MODE/CHANNEL					VALUE	FUNCTION	FADE STATUS	DEFAULT
FIXTURE CONTROL PART/ NAME	STANDARD 27CH	PIXEL 50CH	PIXEL PLUS 82CH	EXTENDED 106CH				
MAIN	10	12	12	12		**Control**		0
					0-9	Idle		
					10-19	Pixel Order Normal		
					20-39	Pixel Order Inverse		
					40-44	Low Noise -Mute		
					45-49	Low Noise - Studio		
					50-59	Fan Control - Low		
					60-69	Fan Control - High		
					70-79	Fan Control - Auto (default)		
					80-84	Reset All		
					85-87	Reset Movement		
					88-91	Reset Zoom		
					92-100	Idle		
					100-168	Refresh Rate (Hz)		
					100	900		
					101	910		
					102	920		
					103	930		
					104	940		
					105	950		
					106	960		
					107	970		
					108	980		
					109	990		
					110	1000		
					111	1010		
					112	1020		
					113	1030		
					114	1040		
					115	1050		
					116	1060		
					117	1070		
					118	1080		
					119	1090		
					120	1100		
					121	1110		
					122	1120		
					123	1130		
					124	1140		
					125	1150		
					126	1160		
					127	1170		
					128	1180		
					129	1190		
					130	1200		
					131	1210		
					132	1220		
					133	1230		
					134	1240		
					135	1250		

DMX TRAITS: MAIN FIXTURE

Features subject to change without notice								
MODE/CHANNEL					VALUE	FUNCTION	FADE STATUS	DEFAULT
FIXTURE CONTROL PART/ NAME	STANDARD 27CH	PIXEL 50CH	PIXEL PLUS 82CH	EXTENDED 106CH				
MAIN	10	12	12	12	136	1260		0
					137	1270		
					138	1280		
					139	1290		
					140	1300		
					141	1310		
					142	1320		
					143	1330		
					144	1340		
					145	1350		
					146	1360		
					147	1370		
					148	1380		
					149	1390		
					150	1400		
					151	1410		
					152	1420		
					153	1430		
					154	1440		
					155	1450		
					156	1460		
					157	1470		
					158	1480		
					159	1490		
					160	1500		
					161	2500		
					162	4000		
					163	5000		
					164	6000		
					165	10000		
					166	15000		
					167	20000		
					168	25000		
					169-192	Idle		
					193-194	Hibernate Fixture		
					195-196	Hibernate Off		
					197-198	Sun Protection Position		
					199-200	Sun Protection Off		
					201-210	Dimmer Curve Linear		
					211-220	Dimmer Curve Square		
					221-230	Dimmer Curve Inverse Square		
					231-240	Dimmer Curve S-Curve (default)		
					241-249	Idle		
					250-251	Display off		
					252-253	Display on		
					254-255	Idle		

DMX TRAITS: MAIN FIXTURE

Features subject to change without notice								
MODE/CHANNEL					**VALUE**	**FUNCTION**	**FADE STATUS**	**DEFAULT**
FIXTURE CONTROL PART/ NAME	**STANDARD 27CH**	**PIXEL 50CH**	**PIXEL PLUS 82CH**	**EXTENDED 106CH**				
MAIN	11	13	13	13		**RGBW FX (see table)**	Snap	0
					0-255	FX Selection 1-255		
	12	14	14	14		**RGBW FX Speed**	Fade	160
					0–126	Rev Fast → Slow		
					127–128	Stop		
					129–255	Slow → Fast		
	13	15	15	15		**FX Offset**	Snap	0
					0	Idle		
					1	Fixture Offset 10 Degree		
					2	Fixture Offset 20 Degree		
					3-34	Fixture Offset…		
					35	Fixture Offset 350 Degree		
					36	Syncronized		
					37-100	No Function		
					101–120	Random Fixture Offset		
					121-140	Random Pixel Order		
					141-255	Random Steps		

DMX TRAITS: RGB PIXEL FX TABLE

Features subject to change without notice								
MODE/CHANNEL					VALUE	FUNCTION	FADE STATUS	DEFAULT
FIXTURE CONTROL PART/ NAME	STANDARD 27CH	PIXEL 50CH	PIXEL PLUS 82CH	EXTENDED 106CH				
MAIN or Pixel 1	14	16	16	16	0-255	**Red** 0 → 100%	Fade	255
	15	17	17	17	0-255	**Green** 0 → 100%	Fade	255
	16	18	18	18	0-255	**Blue** 0 → 100%	Fade	255
	17	19	19	19	0-255	**White** 0 → 100%	Fade	255
Pixel 2		20	20	20	0-255	**Red 2** 0 → 100%	Fade	255
		21	21	21	0-255	**Green 2** 0 → 100%	Fade	255
		22	22	22	0-255	**Blue 2** 0 → 100%	Fade	255
		23	23	23	0-255	**White 2** 0 → 100%	Fade	255
Pixel 3		24	24	24	0-255	**Red 3** 0 → 100%	Fade	255
		25	25	25	0-255	**Green 3** 0 → 100%	Fade	255
		26	26	26	0-255	**Blue 3** 0 → 100%	Fade	255
		27	27	27	0-255	**White 3** 0 → 100%	Fade	255
Pixel 4		28	28	28	0-255	**Red 4** 0 → 100%	Fade	255
		29	29	29	0-255	**Green 4** 0 → 100%	Fade	255
		30	30	30	0-255	**Blue 4** 0 → 100%	Fade	255
		31	31	31	0-255	**White 4** 0 → 100%	Fade	255
Pixel 5		32	32	32	0-255	**Red 5** 0 → 100%	Fade	255
		33	33	33	0-255	**Green 5** 0 → 100%	Fade	255
		34	34	34	0-255	**Blue 5** 0 → 100%	Fade	255
		35	35	35	0-255	**White 5** 0 → 100%	Fade	255
Pixel 6		36	36	36	0-255	**Red 6** 0 → 100%	Fade	255
		37	37	37	0-255	**Green 6** 0 → 100%	Fade	255
		38	38	38	0-255	**Blue 6** 0 → 100%	Fade	255
		39	39	39	0-255	**White 6** 0 → 100%	Fade	255

DMX TRAITS: STROBELINE

Features subject to change without notice								
MODE/CHANNEL					VALUE	FUNCTION	FADE STATUS	DEFAULT
FIXTURE CONTROL PART/ NAME	STANDARD 27CH	PIXEL 50CH	PIXEL PLUS 82CH	EXTENDED 106CH				
StrobeLine	18	40	40	40		**Strobe**	Snap	50
					0-31	Shutter closed		
					32-63	Shutter open		
					64-95	Strobe (slow → fast) 0.289 - 16.67 Hz		
					96-127	Fast Close, Slow Open		
					128-159	Fast Open, Slow Close		
					160-191	Pulse Effects		
					192-222	Random Strobe ALL (slow → fast)		
					224-254	Random Stobe Pixels (slow → fast)		
					255	Sync Dim and Strobe with Main		
	19	41	41	41		**Dimmer**	Fade	0
					0-255	0 → 100%		
	20	42	42	42		**Dimmer Fine**	Fade	0
					0-255	Fine Dimming		
	21	43	43	43		**Duration**	Fade	0
					0-255	7-650ms		
	22	44	44	44		**StrobeLine FX (see table)**	Snap	0
					0-249	FX Selection 1 -249		
					250-255	Idle		
	23	45	45	45		**StrobeLine FX Speed**	Fade	160
					0 – 126	Rev Fast → Slow		
					127 – 128	Stop		
					129 – 255	Slow → Fast		
Strobe 1			46	46		**Dimmer 1**	Fade	255
					0-255	0 → 100%		
Strobe 2			47	47		**Dimmer 2**	Fade	255
					0-255	0 → 100%		
Strobe 3			48	48		**Dimmer 3**	Fade	255
					0-255	0 → 100%		
Strobe 4			49	49		**Dimmer 4**	Fade	255
					0-255	0 → 100%		
Strobe 5			50	50		**Dimmer 5**	Fade	255
					0-255	0 → 100%		
Strobe 6			51	51		**Dimmer 6**	Fade	255
					0-255	0 → 100%		
Strobe 7			52	52		**Dimmer 7**	Fade	255
					0-255	0 → 100%		
Strobe 8			53	53		**Dimmer 8**	Fade	255
					0-255	0 → 100%		
Strobe 9			54	54		**Dimmer 9**	Fade	255
					0-255	0 → 100%		
Strobe 10			55	55		**Dimmer 10**	Fade	255
					0-255	0 → 100%		
Strobe 11			56	56		**Dimmer 11**	Fade	255
					0-255	0 → 100%		
Strobe 12			57	57		**Dimmer 12**	Fade	255
					0-255	0 → 100%		
Strobe 13			58	58		**Dimmer 13**	Fade	255
					0-255	0 → 100%		
Strobe 14			59	59		**Dimmer 14**	Fade	255
					0-255	0 → 100%		
Strobe 15			60	60		**Dimmer 15**	Fade	255
					0-255	0 → 100%		
	...							
Strobe 32			77	77		**Dimmer 32**	Fade	255
					0-255	0 → 100%		

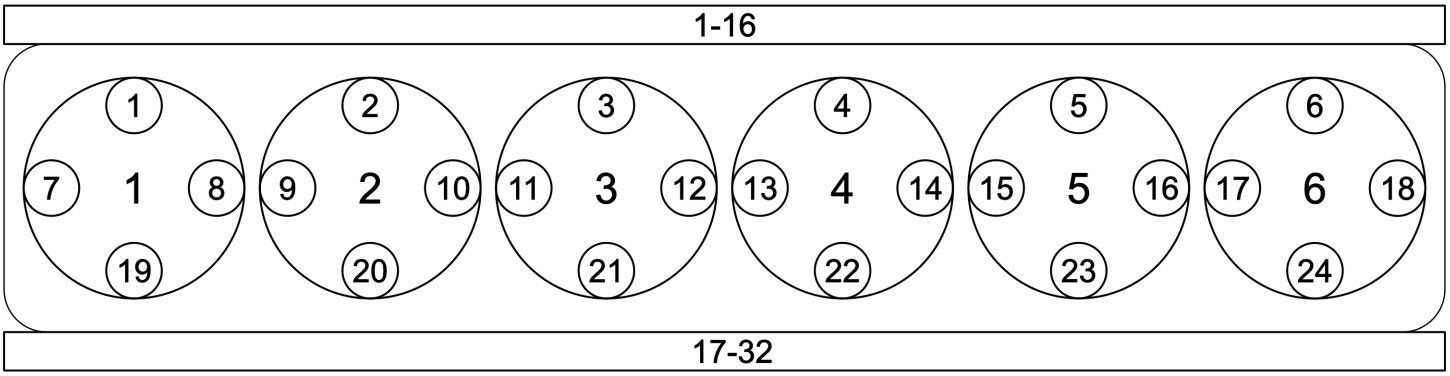
DMX TRAITS: SPARKLED

Features subject to change without notice								
MODE/CHANNEL					VALUE	FUNCTION	FADE STATUS	DEFAULT
FIXTURE CONTROL PART/ NAME	STANDARD 27CH	PIXEL 50CH	PIXEL PLUS 82CH	EXTENDED 106CH				
SparkLED	24	46	78	78		**Strobe**	Snap	50
					0-31	Shutter closed		
					32-63	Shutter open		
					64-95	Strobe (slow → fast) 0.289-16.67 Hz		
					96-127	Fast Close, Slow Open		
					128-159	Fast Open, Slow Close		
					160-191	Pulse Effects		
					192-222	Random Strobe ALL (slow → fast)		
					224-254	Random Stobe Pixels (slow → fast)		
					255	Sync Dim and Strobe with Main		
	25	47	79	79		**Dimmer**	Fade	0
					0-255	0 → 100%		
	26	48	80	80		**Dimmer Fine**	Fade	0
					0-255	Fine Dimming		
	27	49	81	81		**SparkLED FX** (see table)	Snap	0
					0-255	FX Selection 1 -255		
	28	50	82	82		**SparkLED FX Speed**	Fade	160
					0–126	Rev Fast → Slow		
					127–128	Stop		
					129–255	Slow → Fast		
LED 1				83		**Dimmer 1**	Fade	255
					0-255	0 → 100%		
LED 2				84		**Dimmer 2**	Fade	255
					0-255	0 → 100%		
LED 3				85		**Dimmer 3**	Fade	255
					0-255	0 → 100%		
LED 4				86		**Dimmer 4**	Fade	255
					0-255	0 → 100%		
LED 5				87		**Dimmer 5**	Fade	255
					0-255	0 → 100%		
LED 6				88		**Dimmer 6**	Fade	255
					0-255	0 → 100%		
LED 7				89		**Dimmer 7**	Fade	255
					0-255	0 → 100%		
LED 8				90		**Dimmer 8**	Fade	255
					0-255	0 → 100%		
LED 9				91		**Dimmer 9**	Fade	255
					0-255	0 → 100%		
LED 10				92		**Dimmer 10**	Fade	255
					0-255	0 → 100%		
LED 11				93		**Dimmer 11**	Fade	255
					0-255	0 → 100%		
LED 12				94		**Dimmer 12**	Fade	255
					0-255	0 → 100%		
LED 13				95		**Dimmer 13**	Fade	255
					0-255	0 → 100%		
LED 14				96		**Dimmer 14**	Fade	255
					0-255	0 → 100%		
LED 15				97		**Dimmer 15**	Fade	255
					0-255	0 → 100%		
	...							
LED 24				106		**Dimmer 24**	Fade	255
					0-255	0 → 100%		

DMX TRAITS: COLOR TEMPERATURE

Color Temperature	DMX	Color Temperature	DMX	Color Temperature	DMX
2000	11	4700	65	7400	119
2050	12	4750	66	7450	120
2100	13	4800	67	7500	121
2150	14	4850	68	7550	122
2200	15	4900	69	7600	123
2250	16	4950	70	7650	124
2300	17	5000	71	7700	125
2350	18	5050	72	7750	126
2400	19	5100	73	7800	127
2450	20	5150	74	7850	128
2500	21	5200	75	7900	129
2550	22	5250	76	7950	130
2600	23	5300	77	8000	131
2650	24	5350	78	8050	132
2700	25	5400	79	8100	133
2750	26	5450	80	8150	134
2800	27	5500	81	8200	135
2850	28	5550	82	8250	136
2900	29	5600	83	8300	137
2950	30	5650	84	8350	138
3000	31	5700	85	8400	139
3050	32	5750	86	8450	140
3100	33	5800	87	8500	141
3150	34	5850	88	8550	142
3200	35	5900	89	8600	143
3250	36	5950	90	8650	144
3300	37	6000	91	8700	145
3350	38	6050	92	8750	146
3400	39	6100	93	8800	147
3450	40	6150	94	8850	148
3500	41	6200	95	8900	149
3550	42	6250	96	8950	150
3600	43	6300	97	9000	151
3650	44	6350	98	9050	152
3700	45	6400	99	9100	153
3750	46	6450	100	9150	154
3800	47	6500	101	9200	155
3850	48	6550	102	9250	156
3900	49	6600	103	9300	157
3950	50	6650	104	9350	158
4000	51	6700	105	9400	159
4050	52	6750	106	9450	160
4100	53	6800	107	9500	161
4150	54	6850	108	9550	162
4200	55	6900	109	9600	163
4250	56	6950	110	9650	164
4300	57	7000	111	9700	165
4350	58	7050	112	9750	166
4400	59	7100	113	9800	167
4450	60	7150	114	9850	168
4500	61	7200	115	9900	169
4550	62	7250	116	9950	170
4600	63	7300	117	10000	171
4650	64	7350	118		

PIXEL LAYOUTS



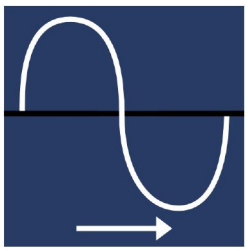
SparkLEDs
Row 1: 1-6
Row 2: 7-18
Row 3: 19-24

StrobeLine
Row 1: 1-16
Row 2: 17-32

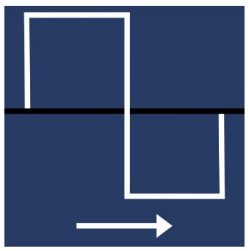
SparkLEDs																		
Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	7	1+19	8	9	2+20	10	11	3+21	12	13	4+22	14	15	5+23	16	17	6+24	18
Lenses	1			2			3			4			5			6		
	1+7+8 +19			2+9+10 +20			3+11+12 +21			4+13+14 +22			5+15+16 +23			6+17+18 +24		

Strobelines																
Column	1+17	2+18	3+19	4+20	5+21	6+22	7+23	8+24	9+25	10+26	11+27	12+28	13+29	14+30	15+31	16+32
Quarters	1-8	9-16	17-24	25-32												
Pixel Order Normal →																
Pixel Order Inverse ←																

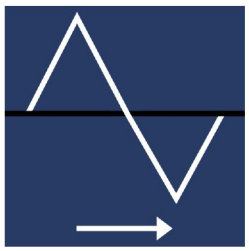
RGBW PIXEL FX TABLE



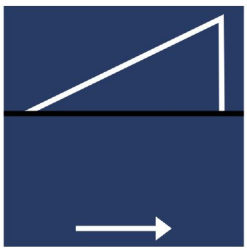
Sine Wave



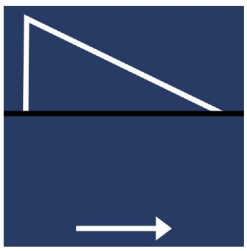
Step Wave (Square)



Sawtooth Wave



Ramp Up Wave



Ramp Down Wave

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Waveform	1	1	Sinewave-Cross (default)		In and Out fade start at the same time
	2	2	Sinewave-Full		In fade completes, then out fade completes
	3	3	Sawtooth-Cross		In and Out fade start at the same time
	4	4	Sawtooth-Full		In fade completes, then out fade completes
	5	5	Ramp Up		
	6	6	Ramp Down		
	7	7	Steps		
	8	8			
	9	9			
	10	10			
Intensity	11	11	Single	Reverse, Stop, Forward	1,2,3,4,5,6
	12	12	Single Bounce	Reverse, Stop, Forward	1,2,3,4,5,6,5,4,3,2
	13	13	2 Pixels	Reverse, Stop, Forward	Any two random pixels per step
	14	14	3 Pixels	Reverse, Stop, Forward	Any three randiom pixels per step
	15	15	1,2,3 pixels	Reverse, Stop, Forward	Pick randomly 1, then 2, then 3 pixels
	16	16			
	17	17			
	18	18			
	19	19			
	20	20	Alternate SparkLED	Reverse, Stop, Forward	Alternate evenly (tick/tock/tick/tock) between RGBW Pixel at Full and SparkLEDs @Full. Keep all colors strobes, intensities as set by DMX.
	21	21	Burst SparkLED	Reverse, Stop, Forward	Toggles between RGBW Pixel at Full (long on) and SparkLEDs @Full (short flash). Keep all colors strobes, intensities as set by DMX.
	22	22	Alternate SparkLED 2	Reverse, Stop, Forward	Strobes between RGBW Pixel at Full (short, then off) and SparkLEDs @Full (short, then off). Keep all colors strobes, intensities as set by DMX.
	23	23	Burst RGBW	Reverse, Stop, Forward	Toggles between RGBW Pixel at Full (short flash) and SparkLEDs @Full (long on). Keep all colors strobes, intensities as set by DMX.
	24	24	Lens/SparkLED alternate	Reverse, Stop, Forward	Random Lens @ Full, then different Random Strobe section of 4pixels @ Full. Keep all colors strobes, intensities as set by DMX.
	25	25	Alternate StrobeLED	Reverse, Stop, Forward	Alternate evenly (tick/tock/tick/tock) between RGBW Pixel at Full and Strobeline @Full. Keep all colors strobes, intensities as set by DMX.
	26	26	Burst StrobeLED	Reverse, Stop, Forward	Toggles between RGBW Pixel at Full (long on) and Strobeline @Full (short flash). Keep all colors strobes, intensities as set by DMX.
	27	27	Alternate StrobeLED 2	Reverse, Stop, Forward	Strobes between RGBW Pixel at Full (short, then off) and Strobelines @Full (short, then off). Keep all colors strobes, intensities as set by DMX.
	28	28	Burst RGBW	Reverse, Stop, Forward	Toggles between RGBW Pixel at Full (short flash) and Strobelines @Full (long on). Keep all colors strobes, intensities as set by DMX.
	29	29			
	30	30			

RGBW PIXEL FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Intensity	31	31			
	32	32			
	33	33			
	34	34			
	35	35			
	36	36			
	37	37			
	38	38			
	39	39			
	40	40			
	41	41			
	42	42			
	43	43			
	44	44			
	45	45			
	46	46			
	47	47			
	48	48			
	49	49			
	50	50			
	51	51			
	52	52			
	53	53			
	54	54			
	55	55			
	56	56			
	57	57			
	58	58			
	59	59			
	60	60			
	61	61			
	62	62			
	63	63			
	64	64			
	65	65			
	66	66			
	67	67			
	68	68			
	69	69			
	70	70			
	71	71			
	72	72			
	73	73			
	74	74			
	75	75			

RGBW PIXEL FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Intensity	76	76			
	77	77			
	78	78			
	79	79			
	80	80			
	81	81			
	85	85			
	86	86			
	87	87			
	88	88			
	89	89			
	90	90			
	91	91			
	92	92			
	93	93			
	94	94			
	95	95			
	96	96			
	97	97			
	98	98			
	99	99			
	100	100			
Color	101	101	RGBW Cells	Reverse, Stop, Forward	Every Pixel Randomly picks a Red, Green, Blue or White on every step
	102	102	RGBWCMY Cells	Reverse, Stop, Forward	Every Pixel Randomly picks a Red, Green, Blue, White, Cyan, Magenta, Yellow on every step
	103	103	Color Wheel Cells	Reverse, Stop, Forward	Every Pixel Randomly picks a color from the color wheel on every step
	104	104	Red White Cells	Reverse, Stop, Forward	Every Cell Randomly picks White or Red on every Step
	105	105	Green White Cells	Reverse, Stop, Forward	Every Cell Randomly picks White or Green on every Step
	106	106	Blue White Cells	Reverse, Stop, Forward	Every Cell Randomly picks White or Blue on every Step
	107	107	Red Green Cells	Reverse, Stop, Forward	Every Cell Randomly picks Red or Green on every Step
	108	108	Red Blue Cells	Reverse, Stop, Forward	Every Cell Randomly picks Red or Blue on every Step
	109	109	Blue Green Cells	Reverse, Stop, Forward	Every Cell Randomly picks Blue or Green on every Step
	110	110	Random White Cell	Reverse, Stop, Forward	RGBW @ Full randomly is set to one cell at a time over the currently mixed color
	111	111	White Flash	Reverse, Stop, Forward	RGBW @ Full flashes once over the current mixed color on all Cells
	112	112	Red Flash	Reverse, Stop, Forward	Red @ Full flashes once over the current mixed color on all Cells
	113	113	Green Flash	Reverse, Stop, Forward	Green @ Full flashes once over the current mixed color on all Cells
	114	114	Blue Flash	Reverse, Stop, Forward	Blue @ Full flashes once over the current mixed color on all Cells
	115	115	Color Wheel Flash	Reverse, Stop, Forward	Current Color Wheel Color @ Full flashes once over the current mixed color on all Cells
	116	116	Alternate Color	Reverse, Stop, Forward	Alternates between mixed color and Color Wheel Color on all cells
	117	117			
	118	118			
	119	119			
	120	120			
	121	121			
	123	123			
	124	124			
	125	125			

RGBW PIXEL FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Colors	126	126			
	127	127			
	128	128			
	129	129			
	130	130			
	131	131			
	132	132			
	133	133			
	134	134			
	135	135			
	136	136			
	137	137			
	138	138			
	139	139			
	140	140			
	141	141			
	142	142			
	143	143			
	144	144			
	145	145			
	146	146			
	147	147			
	148	148			
	149	149			
	150	150			
	151	151			
	152	152			
	153	153			
	154	154			
	155	155			
	156	156			
	157	157			
	158	158			
	159	159			
	160	160			
	161	161			
	162	162			
	163	163			
	164	164			
	165	165			
	166	166			
	167	167			
	168	168			
	169	169			
	170	170			

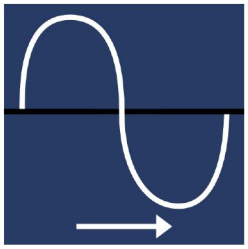
RGBW PIXEL FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Colors	171	171			
	172	172			
	173	173			
	174	174			
	175	175			
	176	176			
	177	177			
	178	178			
	179	179			
	180	180			
	181	181			
	182	182			
	183	183			
	184	184			
	185	185			
	186	186			
	187	187			
	188	188			
	189	189			
	191	191			
	192	192			
	193	193			
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	210	210			
	211	211			
	212	212			
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	214	214			
	215	215			
	216	216			
	217	217			
	218	218			
	219	219			
	220	220			

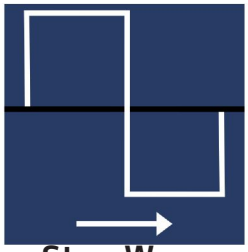
RGBW PIXEL FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Colors	221	221			
	222	222			
	223	223			
	224	224			
	225	225			
	226	226			
	227	227			
	228	228			
	229	229			
	230	230			
	231	231			
	232	232			
	233	233			
	234	234			
	235	235			
	236	236			
	237	237			
	238	238			
	239	239			
	240	240			
	241	241			
	242	242			
	243	243			
	244	244			
	245	245			
	246	246			
	247	247			
	248	248			
	249	249			
	250	250			
	251	251			
	252	252			
	253	253			
	254	254			
	255	255			

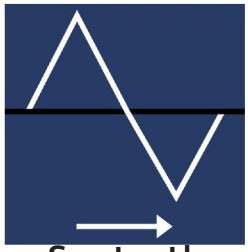
SPARKLED FX TABLE



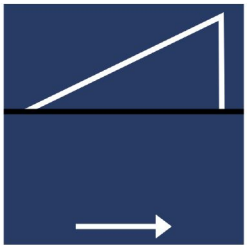
Sine Wave



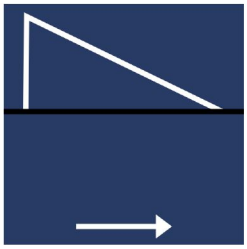
Step Wave (Square)



Sawtooth Wave



Ramp Up Wave



Ramp Down Wave

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Waveform	1	1	Sinewave-Cross (default)		In and Out fade start at the same time
	2	2	Sinewave-Full		In fade completes, then out fade completes
	3	3	Sawtooth-Cross		In and Out fade start at the same time
	4	4	Sawtooth-Full		In fade completes, then out fade completes
	5	5	Ramp Up		
	6	6	Ramp Down		
	7	7	Steps		
	8	8			
	9	9			
	10	10			
SparkLED FX	11	11	Starfield	Reverse, Stop, Forward	Pixels randomly go on and off with random lengths of on and off times
	12	12	1 Pixel	Reverse, Stop, Forward	Random 1 Pixel per step
	13	13	2 Pixels	Reverse, Stop, Forward	Random 2 Pixel per step
	14	14	3 Pixels	Reverse, Stop, Forward	Random 3 Pixel per step
	15	15	4 pixels	Reverse, Stop, Forward	Random 4 Pixel per step
	16	16	5 pixels	Reverse, Stop, Forward	Random 5 Pixel per step
	17	17	7 pixels	Reverse, Stop, Forward	Random 7 Pixel per step
	18	18	8 pixels	Reverse, Stop, Forward	Random 8 Pixel per step
	19	19	Single Row	Reverse, Stop, Forward	One single row per step
	20	20	Single Column	Reverse, Stop, Forward	Single column per step
	21	21	Build Cells	Reverse, Stop, Forward	Add 1 cell per step
	22	22	Pixel Ring Chase	Reverse, Stop, Forward	In every RGBW lens one Sparkled at a time. E.g. Lens 1, Sparkled 1, 8, 19, 7 at the same time Lens 2, 2,10, 20, 9
	23	23	Pixel Row Chase	Reverse, Stop, Forward	In every RGBW pixel one Sparkled at a time. E.g. Lens 1, Sparkled 1, 3+4, 8 at the same time Lens 2, 2, 5+6, 10
	24	24	Pixel Ring Chase 2	Reverse, Stop, Forward	For one RGBW pixel after another turn on one SparkLeds per step, e.g. Lens 1, 1, 4, 8, 3, then Lens 2, 2, 6, 10, 5 etc….
	25	25	Center Out	Reverse, Stop, Forward	Turn on all Sparkleds in Lens 3+4, then step from the center out to the edge
	26	26	Fireworks	Reverse, Stop, Forward	Replicate an exploding firework rocket
	27	27	Ring	Reverse, Stop, Forward	
	28	28	Row	Reverse, Stop, Forward	
	29	29	Snake	Reverse, Stop, Forward	
	30	30			
	31	31			
	32	32			
	33	33			
	34	34			
	35	35			
	36	36			
	37	37			
	38	38			

SPARKLED FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
SparkLED FX	39	39			
	40	40			
	41	41			
	42	42			
	43	43			
	44	44			
	45	45			
	46	46			
	47	47			
	48	48			
	49	49			
	50	50			
	51	51			
	52	52			
	53	53			
	54	54			
	55	55			
	56	56			
	57	57			
	58	58			
	59	59			
	60	60			
	61	61			
	62	62			
	63	63			
	64	64			
	65	65			
	66	66			
	67	67			
	68	68			
	69	69			
	70	70			
	71	71			
	72	72			
	73	73			
	74	74			
	75	75			
	76	76			
	77	77			
	78	78			
	79	79			
	80	80			
	81	81			
	82	82			
	83	83			
	84	84			
	85	85			
	86	86			
	87	87			
	88	88			
	89	89			
	90	90			

SPARKLED FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
SparkLED Lens Combos	91	91			
	92	92			
	93	93			
	94	94			
	95	95			
	96	96			
	97	97			
	98	98			
	99	99			
	100	100			
Full Lens Patterns (all SparkLED in the lens # turn on together)	101	101	Single	Reverse, Stop, Forward	1, 2, 3, 4, 5, 6
	102	102	Single Bounce	Reverse, Stop, Forward	1, 2, 3, 4, 5, 6, 5, 4, 3, 2
	103	103	Fill Row	Reverse, Stop, Forward	1, 1+2, 1+2+3, 1+2+3+4, 1+2+3+4+5, 1+2+3+4+5+6, 1+2+3+4+5, 1+2+3+4, 1+2+3, 1+2, 1
	104	104	2 Pixels	Reverse, Stop, Forward	Any two random pixels per step
	105	105	3 Pixels	Reverse, Stop, Forward	Any three random pixels per step
	106	106	4 Pixels	Reverse, Stop, Forward	Any four randiom pixels per step
	107	107	1,2,3 pixels	Reverse, Stop, Forward	Pick randomly 1, then 2, then 3 pixels
	108	108			
	109	109			
	110	110			
	111	111			
	112	112			
	113	113			
	114	114			
	115	115			
	116	116			
	117	117			
	118	118			
	119	119			
	120	120			
	121	121			
	122	122			
	123	123			
	124	124			
	125	125			
	126	126			
	127	127			
	128	128			
	129	129			
	130	130			
	131	131			
	132	132			
	133	133			
	134	134			
	135	135			
	136	136			
	137	137			
	138	138			
	139	139			
	140	140			
	141	141			
	142	142			
	143	143			
	144	144			
	145	145			

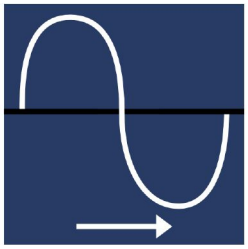
SPARKLED FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Full Lens Patterns (all SparkLED in the lens # turn on together)	146	146			
	147	147			
	148	148			
	149	149			
	150	150			
	151	151	Out	disabled	1+6
	152	152	Mid	disabled	2+5
	153	153	Center	disabled	3+4
	154	154	Set 1	disabled	1+4
	155	155	Set 2	disabled	2+5
	156	156	Set 3	disabled	3+6
	157	157			
	158	158			
	159	159			
	160	160	Block 2-1	disabled	1+2
	161	161	Block 2-2	disabled	3+4
	162	162	Block 2-3	disabled	5+6
	163	163			
	164	164			
	165	165			
	166	166	Block 3-1	disabled	1+2+3
	167	167	Block 3-2	disabled	4+5+6
	168	168			
	169	169			
	170	170			
	171	171			
	172	172			
	173	173			
	174	174			
	175	175			
	176	176			
	177	177			
	178	178			
	179	179			
	180	180			
	181	181			
	182	182			
	183	183			
	184	184			
	185	185			
	186	186			
	187	187			
	188	188			
	189	189			
	191	191			
	192	192			
	193	193			
	194	194			
	195	195			
	196	196			
	197	197			
	198	198			
	199	199			
	200	200			

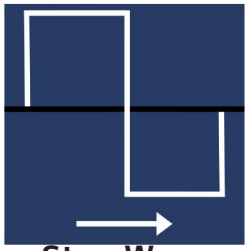
SPARKLED FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Sparkled Pattern	201	201	Row 1	disabled	
	202	202	Row 2	disabled	
	203	203	Row 3	disabled	
	204	204	Column 1	disabled	
	205	205	Column 2	disabled	
	206	206	Column 3	disabled	
	207	207	Column 4	disabled	
	208	208	Column 5	disabled	
	209	209	Column 6	disabled	
	210	210	Column 7	disabled	
	211	211	Column 8	disabled	
	212	212	Column 9	disabled	
	213	213	Column 10	disabled	
	214	214	Column 11	disabled	
	215	215	Column 12	disabled	
	216	216	Column 13	disabled	
	217	217	Column 14	disabled	
	218	218	Column 15	disabled	
	219	219	Column 16	disabled	
	220	220	Column 17	disabled	
	221	221	Column 18	disabled	
	222	222			
	223	223			
	224	224			
	225	225			
	226	226			
	227	227			
	228	228			
	229	229			
	230	230			
	231	231			
	232	232			
	233	233			
	234	234			
	235	235			
	236	236			
	237	237			
	238	238			
	239	239			
	240	240	Lens 1	disabled	
	241	241	Lens 2	disabled	
	242	242	Lens 3	disabled	
	243	243	Lens 4	disabled	
	244	244	Lens 5	disabled	
	245	245	Lens 6	disabled	
	246	246			
	247	247			
	248	248			
	249	249			
	250	250			
	251	251			
	252	252			
	253	253			
	254	254			
	255	255			

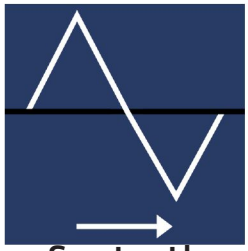
STROBELINE FX TABLE



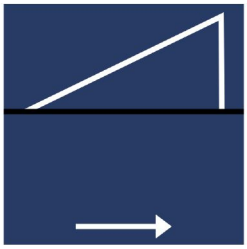
Sine Wave



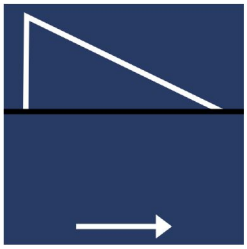
Step Wave (Square)



Sawtooth Wave



Ramp Up Wave



Ramp Down Wave

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Waveform	1	1	Sinewave-Cross (default)		In and Out fade start at the same time
	2	2	Sinewave-Full		In fade completes, then out fade completes
	3	3	Sawtooth-Cross		In and Out fade start at the same time
	4	4	Sawtooth-Full		In fade completes, then out fade completes
	5	5	Ramp Up		
	6	6	Ramp Down		
	7	7	Steps		
	8	8			
	9	9			
	10	10			
StrobeLineFX	11	11	Starfield	Reverse, Stop, Forward	Pixels randomly go on and off with random lengths of on and off times
	12	12	Inverse Starfield	Reverse, Stop, Forward	Pixels randomly go on and off with random lengths of on and off times
	13	13	1 Pixel	Reverse, Stop, Forward	Random 1 Pixel per step
	14	14	2 Pixels	Reverse, Stop, Forward	Random 2 Pixel per step
	15	15	3 Pixels	Reverse, Stop, Forward	Random 3 Pixel per step
	16	16	4 pixels	Reverse, Stop, Forward	Random 4 Pixel per step
	17	17	5 pixels	Reverse, Stop, Forward	Random 5 Pixel per step
	18	18	7 pixels	Reverse, Stop, Forward	Random 7 Pixel per step
	19	19	8 pixels	Reverse, Stop, Forward	Random 8 Pixel per step
	20	20	Single Row	Reverse, Stop, Forward	One single row per step
	21	21	Single Column	Reverse, Stop, Forward	Single column per step
	22	22	Mirror	Reverse, Stop, Forward	
	23	23	Mirror Circle	Reverse, Stop, Forward	
	24	24	Knight Rider	Reverse, Stop, Forward	
	25	25	Marque	Reverse, Stop, Forward	
	26	26	Center Out	Reverse, Stop, Forward	
	27	27	Fireworks	Reverse, Stop, Forward	Replicate an exploding firework rocket
	28	28	Ring	Reverse, Stop, Forward	
	29	29	Row	Reverse, Stop, Forward	
	30	30			
	31	31			
	32	32			
	33	33			
	34	34			
	35	35			
	36	36			
	37	37			
	38	38			
	39	39			
	40	40			

STROBELINE FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
StrobeLineFX	41	41			
	42	42			
	43	43			
	44	44			
	45	45			
	46	46			
	47	47			
	48	48			
	49	49			
	50	50			
	51	51			
	52	52			
	53	53			
	54	54			
	55	55			
	56	56			
	57	57			
	58	58			
	59	59			
	60	60			
	61	61			
	62	62			
	63	63			
	64	64			
	65	65			
	66	66			
	67	67			
	68	68			
	69	69			
	70	70			
	71	71			
	72	72			
	73	73			
	74	74			
	75	75			
	75	75			
	76	76			
	77	77			
	78	78			
	79	79			
	80	80			
	81	81			
	82	82			
	83	83			
	84	84			
	85	85			
	86	86			
	87	87			
	88	88			
	89	89			
	90	90			

STROBELINE FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
StrobeLineFX	91	91			
	92	92			
	93	93			
	94	94			
	95	95			
	96	96			
	97	97			
	98	98			
	99	99			
	100	100			
	101	101	Single	Reverse, Stop, Forward	
	102	102	Single Top/Bottom	Reverse, Stop, Forward	Top Row chases first, then bottom row
	103	103	1/4	Reverse, Stop, Forward	
	104	104	1/4 Top/Bottom	Reverse, Stop, Forward	
	105	105	1/8	Reverse, Stop, Forward	
	106	106	1/8 Top-Bottom	Reverse, Stop, Forward	
	107	107	Single Bounce	Reverse, Stop, Forward	
	108	108	Fill Row	Reverse, Stop, Forward	
	109	109	1/4 Bounce	Reverse, Stop, Forward	
	110	110	1/4 Bounce Single	Reverse, Stop, Forward	
	111	111			
	112	112			
	113	113			
	114	114			
	115	115			
	116	116			
	117	117			
	118	118			
	119	119			
	120	120			
	121	121			
	122	122			
	123	123			
	124	124			
	125	125			
	126	126			
	127	127			
	128	128			
	129	129			
	130	130			
	131	131			
	132	132			
	133	133			
	134	134			
	135	135			
	136	136			
	137	137			
	138	138			
	139	139			
	140	140			
	141	141			
	142	142			
	143	143			
	144	144			
	145	145			

STROBELINE FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
StrobeLineFX	146	146			
	147	147			
	148	148			
	149	149			
	150	150			
	151	151			
	152	152			
	153	153			
	154	154			
	155	155			
	146	146			
	147	147			
	148	148			
	149	149			
	150	150			
	151	151			
	152	152			
	153	153			
	154	154			
	155	155			
	156	156			
	157	157			
	158	158			
	159	159			
	160	160			
	161	161			
	162	162			
	163	163			
	164	164			
	165	165			
	166	166			
	167	167			
	168	168			
	169	169			
	170	170			
	171	171			
	172	172			
	173	173			
	174	174			
	175	175			
	176	176			
	177	177			
	178	178			
	179	179			
	180	180			
	181	181			
	182	182			
	183	183			
	184	184			
	185	185			
	186	186			
	187	187			
	188	188			
	189	189			
	190	190			

STROBELINE FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
StrobeLineFX	191	191			
	192	192			
	193	193			
	194	194			
	195	195			
	196	196			
	197	197			
	198	198			
	199	199			
	200	200			
Strobeline Pattern	201	201	Row 1	disabled	
	202	202	Row 2	disabled	
	203	203	Quarter 1	disabled	
	204	204	Quarter 2	disabled	
	205	205	Quarter 3	disabled	
	206	206	Quarter 4	disabled	
	207	207	Column 1	disabled	
	208	208	Column 2	disabled	
	209	209	Column 3	disabled	
	210	210	Column 4	disabled	
	211	211	Column 5	disabled	
	212	212	Column 6	disabled	
	213	213	Column 7	disabled	
	214	214	Column 8	disabled	
	215	215	Column 9	disabled	
	216	216	Column 10	disabled	
	217	217	Column 11	disabled	
	218	218	Column 12	disabled	
	219	219	Column 13	disabled	
	220	220	Column 14	disabled	
	221	221	Column 15	disabled	
	222	222	Column 16	disabled	
	223	223	Lens 1	disabled	Strobe LEDs above and below the lens
	224	224	Lens 2	disabled	Strobe LEDs above and below the lens
	225	225	Lens 3	disabled	Strobe LEDs above and below the lens
	226	226	Lens 4	disabled	Strobe LEDs above and below the lens
	227	227	Lens 5	disabled	Strobe LEDs above and below the lens
	228	228	Lens 6	disabled	Strobe LEDs above and below the lens
	229	229			
	230	230			
	231	231			
	232	232			
	233	233			
	234	234			
	235	235			
	236	236			

STROBELINE FX TABLE

Features subject to change without notice					
TYPE	**SLOT**	**DMX**	**NAME**	**FX ADJUSTMENT**	**NOTES/STEPS**
Strobeline Pattern	237	237			
	238	238			
	239	239			
	240	240			
	241	241			
	242	242			
	243	243			
	244	244			
	245	245			
	246	246			
	247	247			
	248	248			
	249	249			
	250	250			
	251	251			
	252	252			
	253	253			
	254	254			
	255	255			

REMOTE DEVICE MANAGEMENT (RDM)

NOTE: In order for RDM to work properly, RDM enabled equipment must be used throughout the entire system, including DMX data splitters and wireless systems.

Remote Device Management (RDM) is a protocol that sits on top of the DMX512 data standard for lighting, allowing the DMX systems of the device to be managed, modified, and monitored remotely (hence, remote device management). This protocol is ideal for fixtures installed in locations that are not easily accessible.

With RDM, the DMX512 system becomes bi-directional, allowing a compatible RDM enabled controller to send out a signal to devices on the wire, as well as allowing the fixture to respond (known as a GET command). The controller can then use it's SET command to modify settings that would typically have to be changed or viewed directly via the unit's display screen, including the DMX Address, DMX Channel Mode, and Temperature Sensors.

Please be aware that not all RDM devices support all RDM features, and therefore it is important to check beforehand to ensure that the equipment that you are considering includes all of the features that you require.

The following parameters are accessible in RDM on this device:

LED FIXTURE	
Sensor Definition	YES
Sensor Value	YES
Device Model Description	YES
Manufacturer Label	YES
Device Label	YES
DMX Personality	YES
DMX Personality Description	YES
Device Hours	YES
Comms Status	NO
Status ID Description	NO
Clear Status ID	NO
Device Power Cycles	NO
Tilt Invert	YES
Display Invert	YES
Display Level	NO
Realtime Clock	NO
Power State	NO
Preset Playback	NO
Default Slot Value	NO
Language	NO
Language Capabilities	NO
Boot Software Version Label	NO
Boot Software Version ID	NO
Product Detail ID List	NO
Status Messages	NO

ERROR CODES

When power is applied, the unit will automatically enter a "**Reset/Test**" mode. This mode 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 will flash in the display in the form of "**XXer**" were as XX will represent a function number. For example, when the display shows "**0Er**" it means there is some type of error with the Pan motor. If there are multiple errors during the start-up process they will all flash in the display. For example: if the fixtures has errors on **Channel 1**, **2**, and **5** all at the same time, you will see the error message "**01Er**", "**02Er**", and "**05Er**" flash repeated 5 times.

If an error does occur during the initial start-up procedure the fixture will self-generate a second reset signal and try to realign all the motors and correct the errors. If the error persists after a second attempt a third attempt will be made. If after a third attempt all the errors have not been corrected the fixture will make the following determinations:

- **3 or More Errors**: The fixture cannot function properly with three or more errors therefore the fixture will place itself in a stand-by mode until subsequent repairs can be made.
- **Less Than 3 Errors**: The fixture has less than 3 errors; therefore, most other functions will work properly. The fixture will attempt to operate normally until the errors can be correct by a technician. The errors in question will remain flashing in the display as a reminder of internal errors.

Error Codes subject to change without notice	
ERROR CODES	**DESCRIPTION**
TILT Er	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 TILT Er a reset function.
Zoom Er	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).

MAINTENANCE GUIDELINES



DISCONNECT POWER BEFORE PERFORMING ANY 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 an authorized 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. Lose 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.

FIXTURE DISASSEMBLY

The following points should be observed after performing any maintenance procedure that requires disassembly of the unit:

- After the unit has been reassembled, open the valve, and allow the light to run for approximately 2 hours to dry out any moisture that has been trapped inside the fixture. The process should continue until indicated humidity drops below 15% for the head and 30% for the base.
- Once this has been achieved, the light can be switched off, but the unit should remain connected to power so that the cooling fan can cool down the unit. Please note that allowing cool down time should ALWAYS be done after lamp operation.
- Some units may require partial disassembly in order to gain access to the valve. Please contact Elation service for information regarding the location and access procedure for the valve on your specific unit model.

SPECIFICATIONS

SOURCE
(6) 60W Osram RGBW LEDs
(24) 2W White SparkLED™
(128) 1W Strobe LED
50,000 Hour Average LED Life*
*Test lab conditions. May vary depending on several factors including but not limited to:
Environmental Conditions, Power/Voltage, Usage Patterns (On-Off Cycling), Control, and Dimming.

PHOTOMETRIC DATA
6,000 Total Lumen Output (RGBW)
CRI 80
Zoom Range 6°-45°
Colortemperature SparkLED 4000K
Colortemperature Strobe Line 6500K

EFFECTS
Motorized Zoom
Linear Color Temperature Presets (2700-8000K)
RGBW Color Mixing and Pixel Control
White SparkLED Lens Effect
Dual White Strobe Lines (64 pixels per side)
Color Presets and Macros
Electronic Strobe and Variable Dimming Curves
16-bit Dimming

CONTROL / CONNECTIONS
3 DMX Channel Modes (27/50/106 channels)
Pixel controlled Wash, SparkLED and Strobe LED
210° Tilt Movement
DMX Adjustable Refresh Rate (900 -25000 Hz)
(6) Button Touch Panel
Full Color 180° Reversible LCD Menu Display
RDM Support
IP65 5pin XLR DMX In/Out
IP65 RJ45 Ethernet In/Out (Art-Net, sACN)
IP65 Locking Power Cable In

SIZE / WEIGHT
Length: 19.8 in (504mm)
Width (Base): 7.6 in (194mm)
Width (Head): 6.1 in (155mm)
Height (head up): 13.2 in (336mm)
Height (head 90 degree): 11.3in (288mm)
Weight: 39.46lbs. (17.9kg)

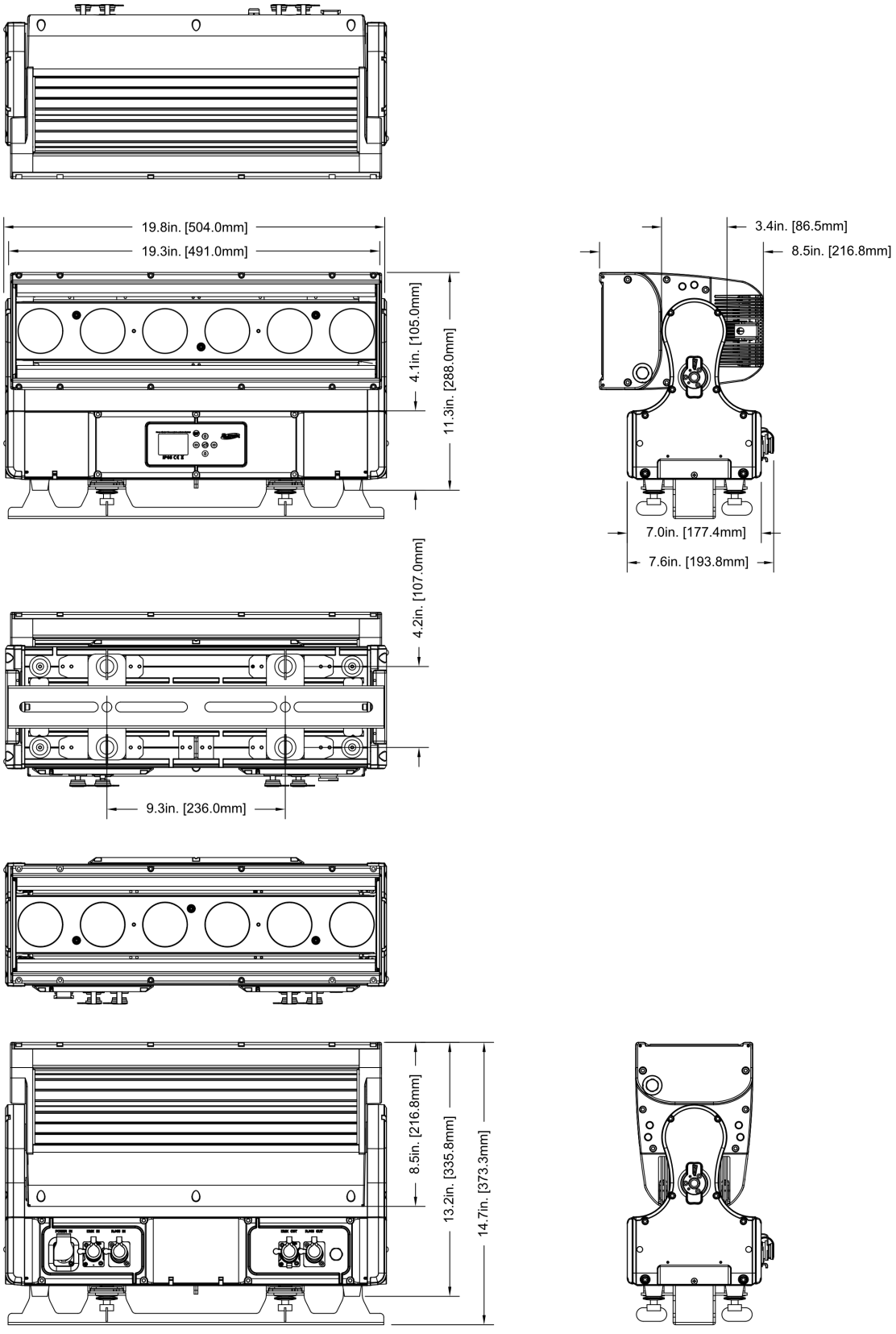
ELECTRICAL / THERMAL
AC 100-240V 50/60Hz
700W Max Power Consumption

APPROVALS / RATINGS
CE | cETLus | IP65

Specifications and documentation subject to change without notice.

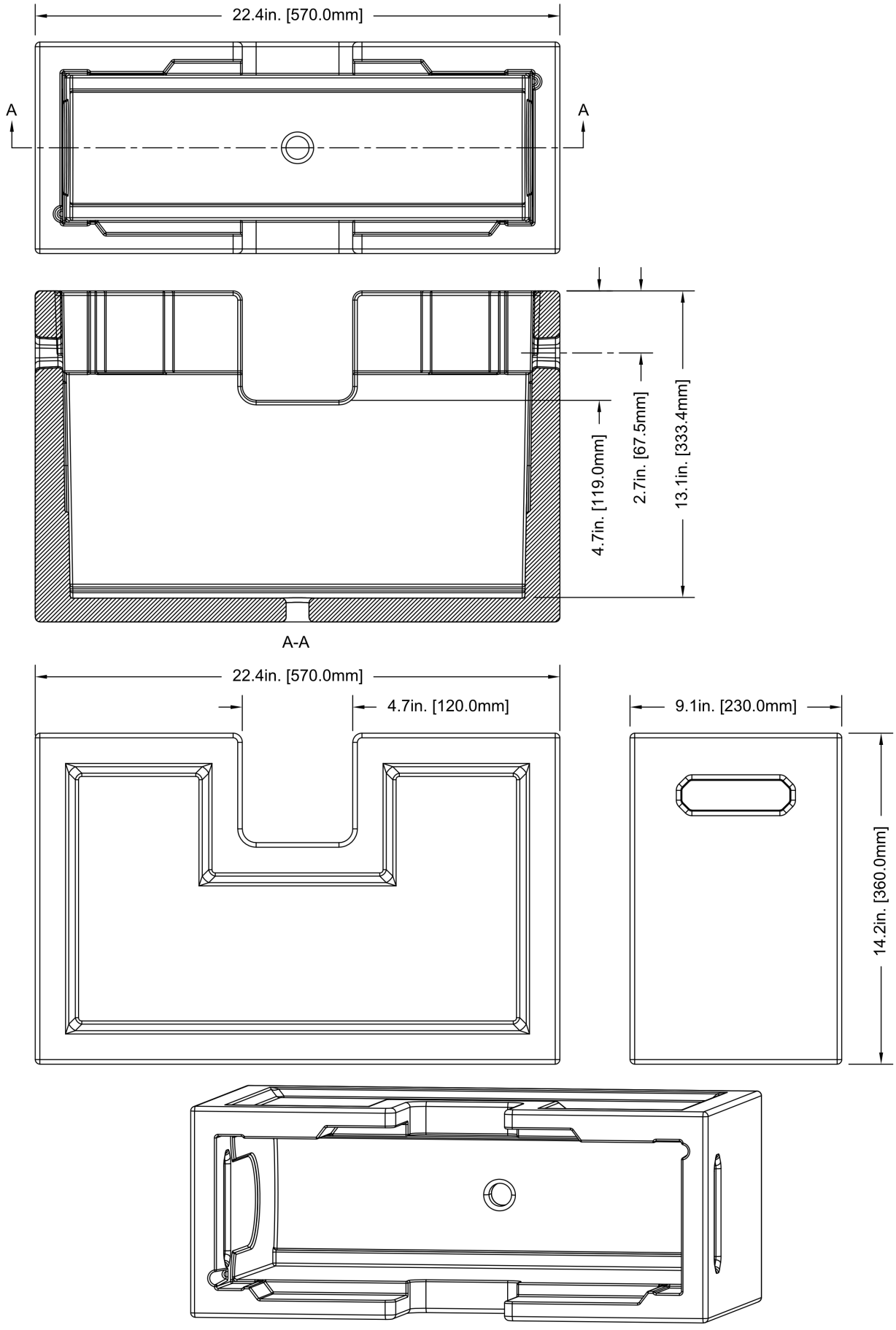
DIMENSIONS-FIXTURE

*Drawings not to scale. Specifications and improvements in the design of this unit and this manual are subject to change without notice.



DIMENSIONS-FIL

*Drawings not to scale. Specifications and improvements in the design of this unit and this manual are subject to change without notice.



OPTIONAL ACCESSORIES

ORDER CODE	ITEM
TRIGGER CLAMP	Heavy Duty Wrap Around Hook Style Clamp
SIP126	5 ft. (1.5m) IP65 Power Link Cable
AC5PDMX5PRO	5 ft. (1.5m) 5pin PRO DMX Cable
	Additional Cable Lengths Available

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC RADIO FREQUENCY INTERFERENCE WARNINGS & INSTRUCTIONS

This product has been tested and found to comply with the limits as per Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device uses and can radiate radio frequency energy and, if not installed and used in accordance with the included instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be deter- mined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following methods:

- Reorient or relocate the device.
- •ncrease the separation between the device and the receiver.
- Connect the device to an electrical outlet on a circuit different from which the radio receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Energy Saving Matters (EuP 2009/125/EC)

Saving electric energy is a key to help protecting the environment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!