



**PROTEUS™**

**RAYZOR 760**

**RAYZOR 760 WMG**

**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](http://www.elationlighting.com) for the latest revision/update of this manual, before installation and/or programming.

Date	Document Version	Software Version ≥	DMX Channel Modes	Notes
05/28/19	1.0	1.2.1	25 / 52 / 80	Initial release.
09/30/19	1.1	N/C	NO CHANGE	Included RJ4 data cable note.
10/15/19	2.0	1.2.2	NO CHANGE	Updated System Sub Menus, DMX Control Channel, and RGBW/SparkLED FX Tables.
03/05/20	2.5	1.2.2	NO CHANGE	Added torque screw setting page
05/12/20	3.0	N/C	NO CHANGE	Added Elation Proteus Rayzor 760 WMG
08/10/20	3.5	N/C	NO CHANGE	Updated thermal
10/14/20	4.0	N/C	NO CHANGE	Updated specifications
02/04/21	4.5	1.2.4	NO CHANGE	Updated primary/secondary modes
03/15/21	5.0	N/C	NO CHANGE	Hibernation / Sun protection warning and information.
05/20/21	5.5	N/C	NO CHANGE	Updated Maintenance Guidelines

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# GENERAL INFORMATION

## 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.

## 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 Locking Power Cord Power Cable

## CUSTOMER SUPPORT

Contact **ELATION Service** for any product related service and support needs.

Also visit [forums.elationlighting.com](https://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](mailto:support@elationlighting.com)**

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**REPLACEMENT PARTS** please visit [parts.elationlighting.com](https://parts.elationlighting.com)

## **WARRANTY RETURNS (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  
MANUFACTURES WARRANTY. DAMAGES RESULTING FROM  
MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY  
INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE  
MANUFACTURES WARRANTY AND ARE NOT SUBJECT TO ANY  
WARRANTY CLAIMS AND/OR REPAIRS.**



**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!**



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



**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.**



**MINIMUM DISTANCE TO OBJECTS/SURFACES  
MUST BE 3.3 FEET (1 METER)  
MAXIMUM TEMP OF EXTERNAL SURFACE 185° F (85°C)  
MINIMUM DISTANCE OF INFLAMMABLE MATERIALS  
FROM THE SURFACE 1.6 FEET (0.5 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.

Allow approx. 6" (15cm) between fixture and other devices or a wall for proper cooling.

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 out the plug by tugging the wire portion of the cord.

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.

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.

# 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 your local Elation dealer.

Please refer to the following points during routine inspections:

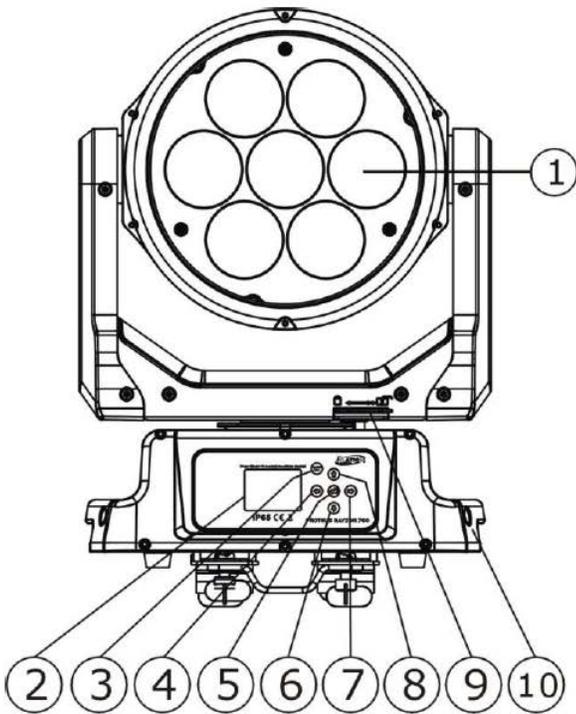
- A detailed electric check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation resulting in damage 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.

## FIXTURE DISASSEMBLY

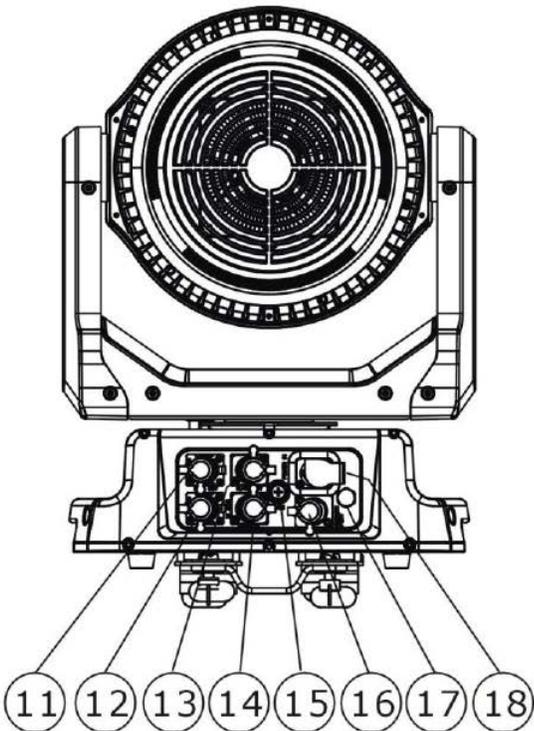
The following points should be observed after performing any maintenance procedure that requires disassembly of the unit:

- After the unit has been reassembled, open the valve and allow the light to run for approximately 2 hours in order 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.

# FIXTURE OVERVIEW



1. Lens
2. System Menu LCD Display
3. MODE/ESC Button
4. LEFT Button
5. ENTER Button
6. DOWN Button
7. RIGHT Button
8. UP Button
9. Pan Lock
10. Carrying Handle(s)



11. 5pin DMX Output
12. 5pin DMX Input
13. RJ45 Output
14. RJ45 Input
15. Fuse
16. Service Port
17. Value
18. Power Input

# 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.



**USE CAUTION WHEN POWER LINKING OTHER MODEL FIXTURES AS THE POWER CONSUMPTION OF OTHER MODEL FIXTURES MAY EXCEED THE MAX POWER OUTPUT ON THIS FIXTURE. CHECK SILK SCREEN FOR AMX AMPS.**



**MINIMUM DISTANCE TO OBJECTS/SURFACES  
MUST BE 3.3 FEET (1 METER)**



**MINIMUM DISTANCE OF INFLAMMABLE MATERIALS  
FROM THE SURFACE 1.6 FEET (0.5 METER)**



**MAXIMUM TEMPERATURE OF EXTERNAL SURFACE 185° F (85°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 a single fixture or multiple fixtures to any metal truss/structure or placing the fixture(s) 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(s), 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 **14° to 113°F. (-10° to 45°C)**

Do not use the fixture under or above this temperature.

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

**NEVER** stand directly below the fixture(s) 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 15 minutes for the fixture to cool down before serving.

# INSTALLATION GUIDELINES

## OMEGA BRACKETS 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.



## CLAMP INSTALLATION

When mounting fixture to truss, be sure to secure an appropriately rated professional grade rigging clamp to the included **Omega Brackets** using an M10 screw fitted through the center hole of the **Omega Brackets**. The fixture provides a built-in rigging points for a **SAFETY CABLE**. 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.

## RIGGING

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.



**ALWAYS ATTACH AN APPROPRIATELY RATED SAFETY CABLE (NOT INCLUDED) THAT MEETS ALL LOCAL, NATIONAL, AND COUNTRY CODES AND REGULATIONS WHENEVER INSTALLING FIXTURE IN A SUSPENDED ENVIRONMENT!**

## 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](https://en.wikipedia.org/wiki/Internet_Group_Management_Protocol)

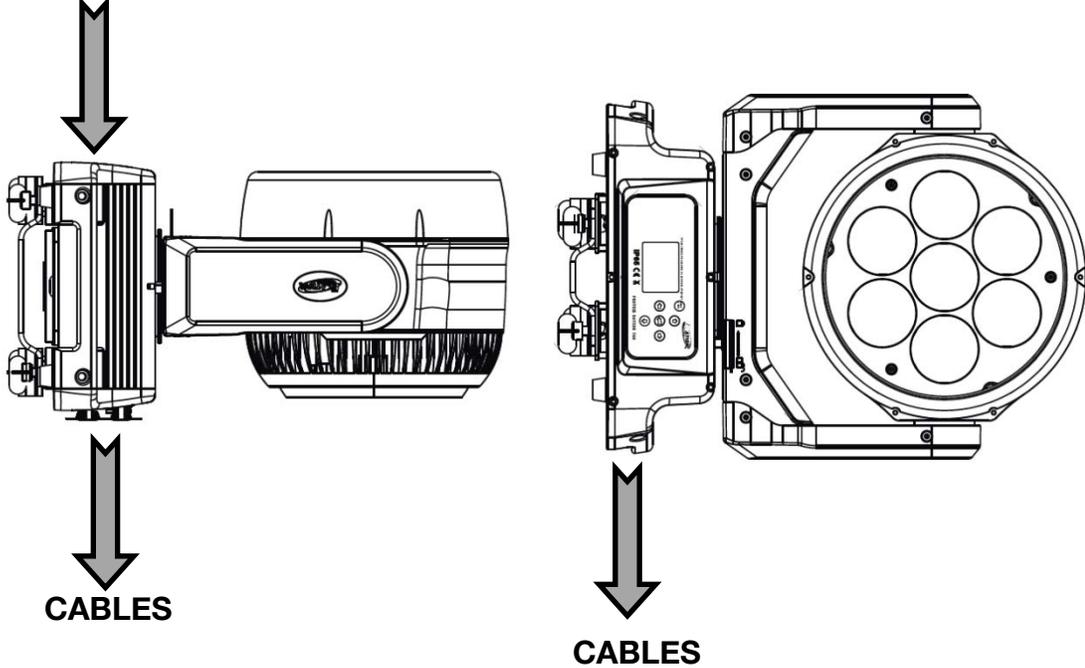
# INSTALLATION GUIDELINES

## 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.

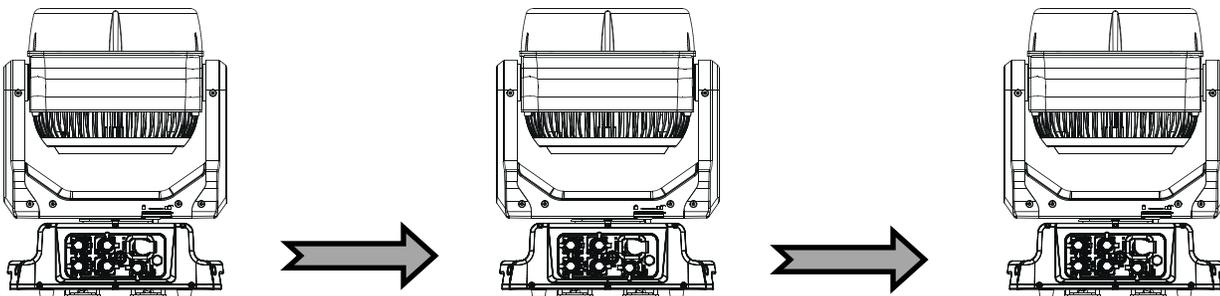
SYSTEM MENU LCD DISPLAY



## INCLUDED RJ45 DATA CABLE



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



# INSTALLATION GUIDELINES

## POWER AND DATA CONNECTIONS



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.



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



**SAFETY CABLE ATTACHMENT**



ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS DEVICE IN A SUSPENDED ENVIRONMENT TO ENSURE THE FIXTURE WILL NOT DROP IF THE CLAMP FAILS.

# FIXTURE INSTALLATION

## 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 on 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.**

### SUN PROTECTION MODE / HIBERNATION MODE

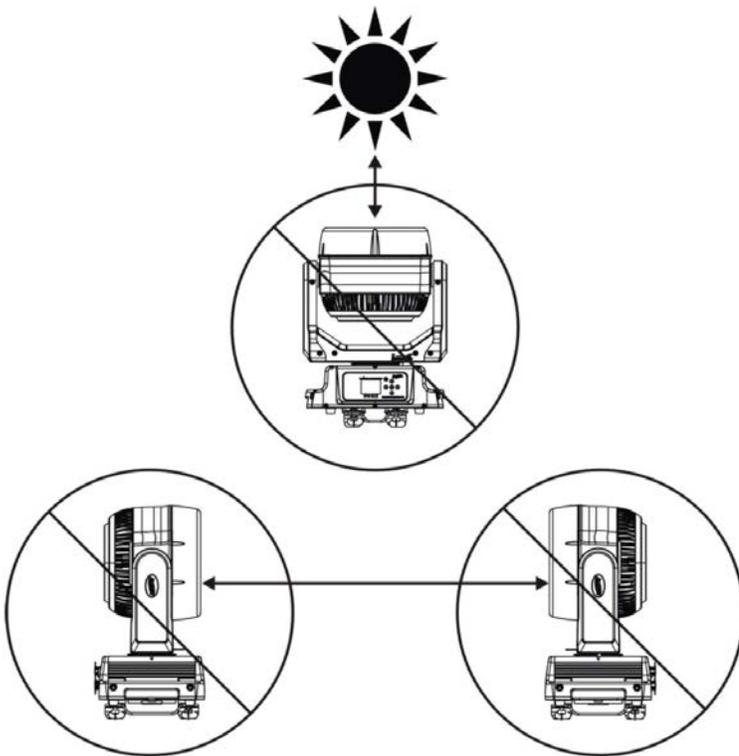
This state can be set via DMX, or will go into this state after 3 minutes without a DMX signal.

When the sun protection is activated, the pan-and-tilt function of the moving-head will position the lens away from direct sunlight, or other high intensity light source, to protect the internal belts, electronics etc. from burn damage.

When the unit is in the 'sun protection state', it uses its accelerometer sensors (X-Y-Z) (only present on discharge units and IP units) to position the front lens downwards, even when the unit(s) will be moved from its position. This will keep on changing the position of the head.

**Note that 'manual mode' overrides the 'sun-protection mode'.**

The hibernation function is an incredibly old feature that puts the unit into a 'sleep state' to save power (this is a state whereas only the electronics remain on, and all other functions are turned off, functions such as motors lamps etc.). This state is automatically activated when no DMX signal is present for the set time (1-99min or off).



# TORQUE SETTINGS FOR SCREWS



PANEL SCREWS MUST BE TIGHTENED WITH A TORQUE WRENCH.



The hex-head screws holding the panels **MUST** be tightened with a torque wrench. (not included)

**TORQUE SETTING = 11 lbf-in. (12.7kgf-cm) \***

**\* lbf-in = Pound Force Inches | kgf-cm = Kilogram Force Centimeters**



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

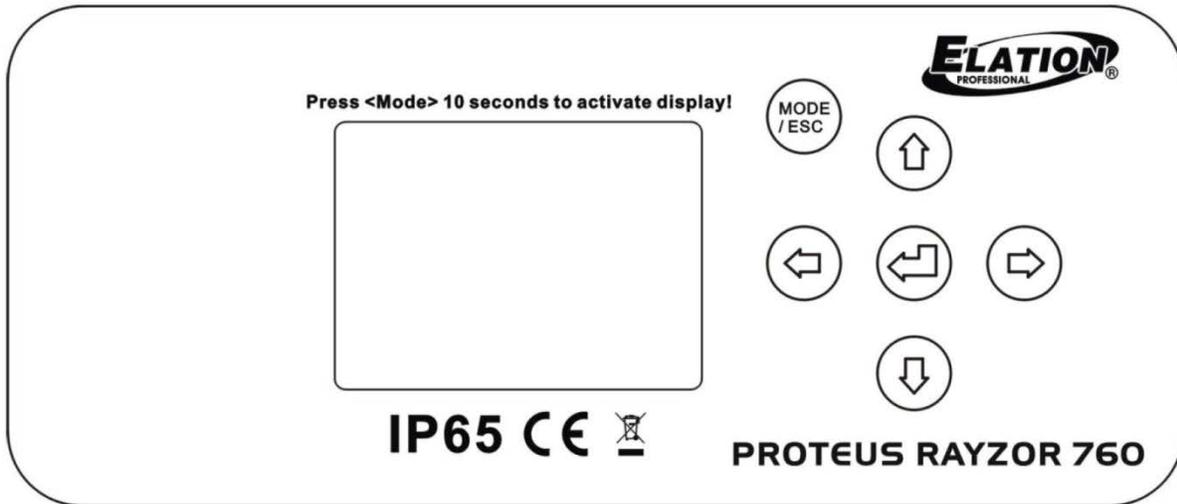
**TO CONFIRM THE IP65 INTEGRITY AFTER OPENING PANEL, TEST FIXTURE USING THE ELATION IP TESTER. CONTACT ELATION SERVICE FOR MORE DETAILS.**



# 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.

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.



ALTHOUGH E-FLY SETTINGS MAY APPEAR IN THE SYSTEM MENU, THIS FEATURE IS NOT ACTIVATED. E-FLY WIRELESS DMX IS AN OPTIONAL FEATURE WHICH MUST BE ACTIVATED IN THE SERVICE MENU. PLEASE CONTACT ELATION SERVICE FOR FURTHER DETAILS.



**ELATION PROTEUS RAYZOR 760™  
SYSTEM MENU**

**Supports Software Versions: ≥ 1.2.1**

Features subject to change without notice.  
\*Rotation direction (Clockwise/Counterclockwise) and control of effects depends on head orientation and Pan/Tilt settings.

MAIN MENU	SUB 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 / <b>Alone</b>		Auto Program
INFORMATION	Time Information	Current Time	XXXX (Hours)	Fixture Run Time From Power ON
		Total Run Time	XXXX (Hours)	Fixture Total Run Time
		Last Run Time	XXXX (Hours)	Fixture Last Run Time
		LastRun Password	Password= <b>038</b>	<b>(PSWD Required)</b>
		Clear Last Run	ON / OFF	Clear Fixture Last Run Time
	Temperature Info	LED Temperature	XXX C° / F°	Temperature in LEDs
		Head Temperature	XXX C° / F°	Temperature in Fixture Head
		Base Temperature	XXX C° / F°	Temperature in Fixture Base
	Humidity Info	Head Humidity	XX%	Humidity in Head
		Base Humidity	XX%	Humidity In Base
	Ethernet IP	000.000.000.000	000.000.000.000	Displays Fixture Ethernet Address
	Fan Info	HeadFan1-6, BaseFan1 / 2 (Standby, Fault)		RPM Speeds of Head/Base Fans
	Software Version	1U01: - 7U01:	≥ <b>V1.2.1</b>	Software Version
	Error Info	Error Record 1 ~ Error Record 10		Fixture Last 10 Error Codes
PERSONALITY	Status Settings	Address via DMX	ON/OFF	Address Via DMX
		No DMX Status	Close / <b>Hold</b> / Auto	Fixture State When NO DMX Signal
		Pan Reverse	ON/OFF	Pan Reverse Movement
		Tilt Reverse	ON/OFF	Tilt Reverse Movement
		Pan Degree	360/ <b>540</b>	Pan Degree Select
		Tilt Degree	360/ <b>270</b>	Tilt Degree Select
		Pan Tilt Path	ShortestPath / <b>ContinuePath</b>	Pan Tilt Path Mode
		Feedback	ON/OFF	Movement Feedback
		LED Degree Change	<b>0</b> / 180	LED Degree Change
		Hibernation	OFF, 01M~99M, <b>15M</b>	Stand By Mode
	Service Setting	Password	Password= <b>050</b>	Service Password
		RDM UID	<b>22A6xxxxxxxx</b>	RDM PID Code ( <b>PSWD Required</b> )
		Clear Err. Info	ON/OFF	Clear Error Info ( <b>PSWD Required</b> )
		USB Update	YES/ <b>NO</b>	Service Port - Software Updates
	Fans Control	<b>Auto</b> , High, Silent		Select Fan Speeds
	Display Setting	Shutoff Time	02~60m <b>05m</b>	Display Shut Off Time
		Display Reverse	ON/OFF	Display Reverse 180°
		Key Lock	ON/OFF	Key Lock
	Temperature C/F	<b>Celsius/Fahrenheit</b>		Temperature Switch Between C° / F°
	Initial Status	Control = XXX		Initial Effect Position
	Select Signal	<b>DMX Only</b>		DMX In/Out
		Art-Net		Select Art-Net
		sACN		Activate sACN
	Ethernet IP	XXX . XXX . XXX . XXX		Ethernet IP (PSWD Required)
	Ether Mask IP	XXX . XXX . XXX . XXX		Ethernet Mask IP (PSWD Required)
	Set Universe	<b>000</b> - 32767		Set ArtNet Universe
	Dimmer Mode	<b>Standard</b> , Stage, TV, Architectural, Theatre, Stage2		Set Dimmer Mode
	Refresh	1200, 900-1500, 2500, 4000, 5000, 6,000, 10000, 15000, 20000, 25000 (Hz)		Set LED Refresh Rate
	Dimmer Curve	<b>Linear</b> , Square, Inverse Square, S-Curve		Set Dimmer Curve Mode
	Reset Default	ON/OFF	Password= <b>011</b>	Restore Factory Settings ( <b>PSWD Required</b> )

**ELATION PROTEUS RAYZOR 760™ SYSTEM MENU**

## Supports Software Versions: ≥ 1.2.1

Features subject to change without notice.  
\*Rotation direction (Clockwise/Counterclockwise) and control of effects depends on head orientation and Pan/Tilt settings.

MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in BOLD)		DESCRIPTION
Reset Function	Reset All			Reset All Motors
	Reset Pan&Tilt			Reset Pan/Tilt
	Reset Others			Reset Other Motors
Effect Adjust	Test Channel	PAN .....		Test function
	Manual Control	PAN =XXX, .....		Fine Adjustments
	Calibration	Calibration Password		Password <b>050 (PSWD Required)</b>
User Mode Set	User Mode	<b>Standard</b>		DMX Channel Modes
		Pixels		
		Extended		
Edit Program	Select Program	Auto Pro Part1 = Program 1~10 ( <b>Program 1</b> )		Select Programs To Be Run
		Auto Pro Part2 = Program 1~10 ( <b>Program 2</b> )		
		Auto Pro Part3 = Program 1~10 ( <b>Program 3</b> )		
	Edit Program	Program 1	Program Test	Testing Program
		:	Step 01=SCxxx	Program In Loop
		Program 10	Step 64=SCxxx	Save and Exit
	Edit Scenes	Edit Scene 001 ~ Edit Scene 250	Pan, Tilt, .....	Save and Automatically Return
			--Fade Time-- --Scene Time--	Manual Scenes Edit
			Input By Outside	Stores Scenes via Ext DMX Console
Rec. Controller	XX~XX	Automatic Scenes Recorder		

## REVISED SUB MENUS WITH SOFTWARE UPDATE VERSION ≥1.2.2

See highlighted menu items below which have been updated with this software update.

PERSONALITY	Dimmer Mode	<b>Standard</b> , Stage, TV, Architectural, Theatre, Stage2, 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0	Set Dimmer Mode / Delay Time
-------------	-------------	--	------------------------------

# SYSTEM MENU

## 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 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 for approximately 20 seconds (some fixtures may require a longer time) for the fixture to complete the address reset function.

## PERSONALITY – Service Setting - Password (050)

The Service Password MUST be entered to access the service menus.

# SYSTEM MENU

## PERSONALITY – Service Setting – USB Update

To update the fixture software via the **UPDATE/SERVICE PORT**, follow steps below.



**ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION!**  
**NOTE ALL MENU SETTINGS BEFORE UPDATING SOFTWARE!**  
**FIXTURE SOFTWARE CAN NOT BE DOWNGRADED!**  
**DOWNLOAD FIXTURE SOFTWARE TO PC ONLY! (NO MAC SUPPORT)**  
**PLEASE CONTACT ELATION SERVICE FOR FURTHER INFORMATION.**

1. Copy fixture software update file from a PC computer to a compatible USB flash drive.  
Make sure only the fixture software update file is stored on the USB flash drive.
2. Disconnect DMX, Art-Net, and E-FLY connections and power the fixture ON.
3. Insert USB flash drive into the **UPDATE/SERVICE PORT** on the rear connection panel.
4. Navigate to the **Personality** main menu **Service Setting / USB Update** sub menu.
5. Select the software file name on the menu display and press **ENTER**.
6. Select **YES** to begin update process and **Updating...%** will show on the menu display.
7. After file is uploaded, the fixture will check the software which will take some time.  
The fixture will perform a reset process when the software update process is complete.
8. Remove the USB flash drive and make necessary system menu setting adjustments.

## 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 - Reset Default (011)



**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.

# SYSTEM MENU

## **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 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.

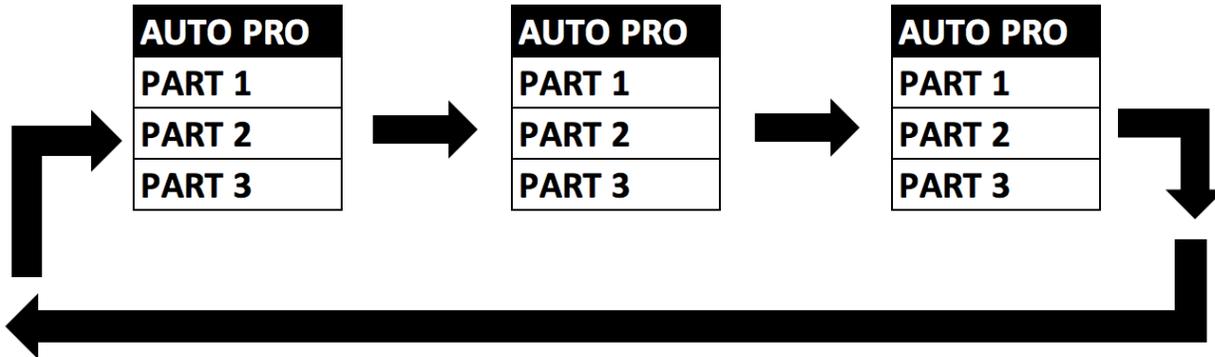
## **EDIT PROGRAM – Rec. Controller**

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. Secondary 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** to return to the main menu.

# SYSTEM MENU

## EDIT PROGRAM – Record Controller – Working with Built-In Program [continued]

### 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**”.

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.

### Example:

Program 2 includes scenes: 10, 11, 12, & 13

Program 4 includes scenes: 8, 9, & 10

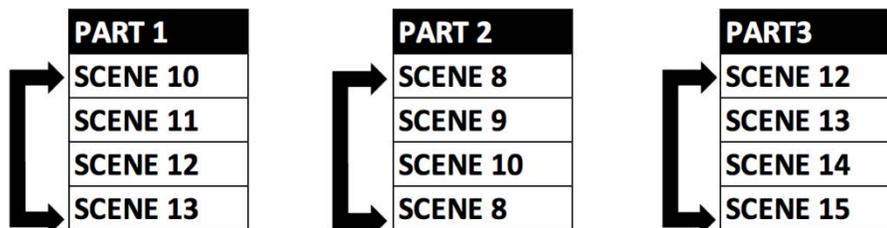
Program 6 includes scenes: 12, 13, 14, & 15

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. (See chart below)

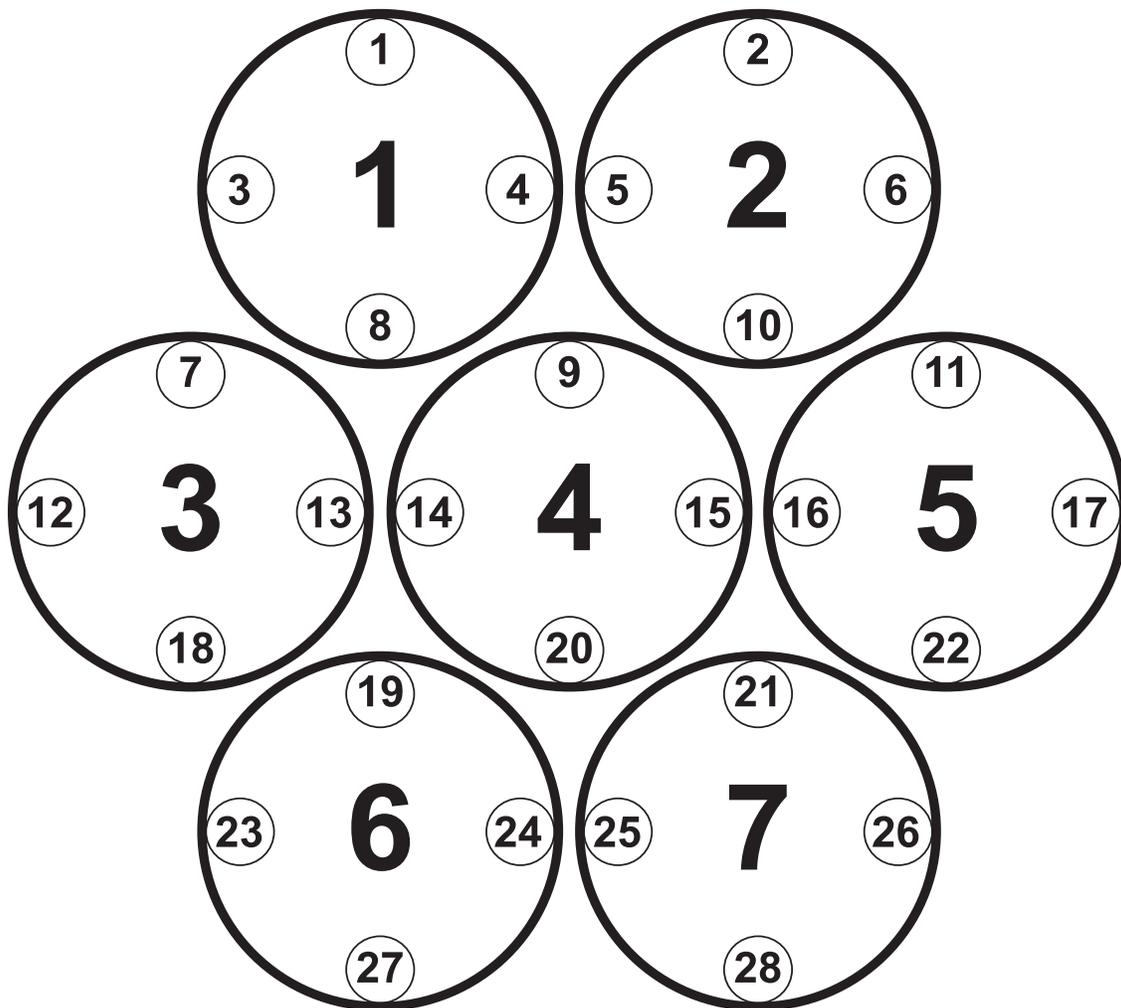


# LIGHTING CONSOLE PATCHING GUIDELINES

The PROTEUS RAYZOR 760 is a versatile luminaire which combines two fixtures into one housing, allowing it to produce multiple unique lighting effects typically not found in a single lighting fixture. The DMX layout is designed to offer a variety of options for controlling each fixture efficiently.

The main fixture contains 7x 60W RGBW pixel cells, while the SparkLED fixture contains 28 x 2W white LEDs. For ease of use the DMX layout is arranged to allow lighting consoles to separate the fixture into multiple segments or parts. It is important to arrange the fixture in such segments or parts especially when using the fixture in the full extended 80 channel DMX mode. For simpler programming, reduced DMX channel modes can be used. However, for easy recall of interesting pixel animations both the RGBW and SparkLED fixtures contain two FX systems, one controls the RGBW cells, while the other is dedicated to the SparkLEDs.

The pixels are arranged in a grid pattern as illustrated below. (RGBW 1-7 | SparkLED 1-28)



# LIGHTING CONSOLE PATCHING GUIDELINES

PIXEL LAYOUT	PIXEL NUMBERS
<b>RGBW Row 1</b>	1, 2
<b>RGBW Row 2</b>	3, 4, 5
<b>RGBW Row 3</b>	6, 7
<b>RGBW Column 1</b>	3
<b>RGBW Column 2</b>	1, 3, 6
<b>RGBW Column 3</b>	1, 4, 6,
<b>RGBW Column 4</b>	4
<b>RGBW Column 5</b>	2, 4, 7
<b>RGBW Column 6</b>	2, 5, 7
<b>RGBW Column 7</b>	5
<b>SparkLED Row 1</b>	1, 2
<b>SparkLED Row 2</b>	3, 4, 5, 6
<b>SparkLED Row 3</b>	7, 8, 9, 10, 11
<b>SparkLED Row 4</b>	12, 13, 14, 15, 16, 17
<b>SparkLED Row 5</b>	18, 19, 20, 21, 22
<b>SparkLED Row 6</b>	23, 24, 25, 26
<b>SparkLED Row 7</b>	27, 28
<b>SparkLED Ring 1</b>	1, 2, 6, 11, 17, 22, 26, 28, 27, 23, 18, 12, 7, 3
<b>SparkLED Ring 2</b>	4, 5, 10, 16, 21, 25, 24, 19, 13, 8
<b>SparkLED Ring 3</b>	9, 15, 20, 14

# LIGHTING CONSOLE PATCH GUIDELINES

There are also two additional parts for a primary control of the PROTEUS RAYZOR 760, which creates four separate control areas for the fixture. It is recommended to create fixture groups on the lighting controller for each area of the fixture. (see below)

<b>Main Fixture</b>	Primary Pan, Tilt, RGBW Color, Strobe, Dimmer, Zoom, FX Controls
<b>RGBW Cells 1-7</b>	Red, Green, Blue, White per each individual cell
<b>SparkLED Main</b>	Primary SparkLED Strobe, Dimmer
<b>SparkLEDs 1-28</b>	SparkLED Dimmer per each individual LED

➔ **SparkLED is not available as a mode in the fixture menu but must be provided as a console control profile for easy programming of the fixture. Use the PROTEUS RAYZOR 760 in Extended mode and patch appropriate parts of the RGBW Pixels and SparkLED fixtures on your control system to access all 80 channels.**

On the lighting controller, patch the two fixture types (RGBW and SparkLED), separating the SparkLEDs into a different ID range. (see below)

## RGBW Pixels for Channels 1-52

## SparkLEDs for Channels 53-80

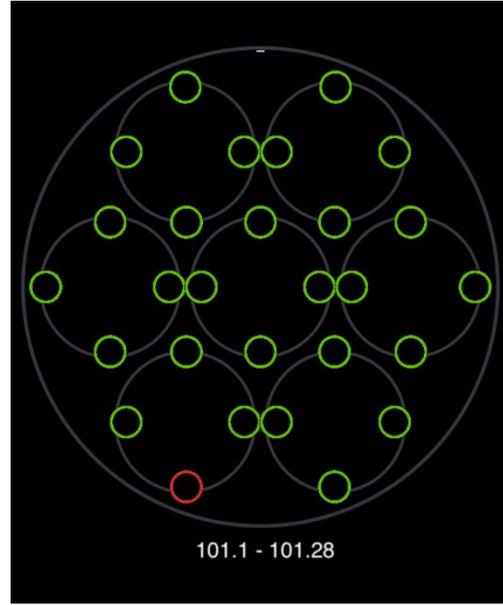
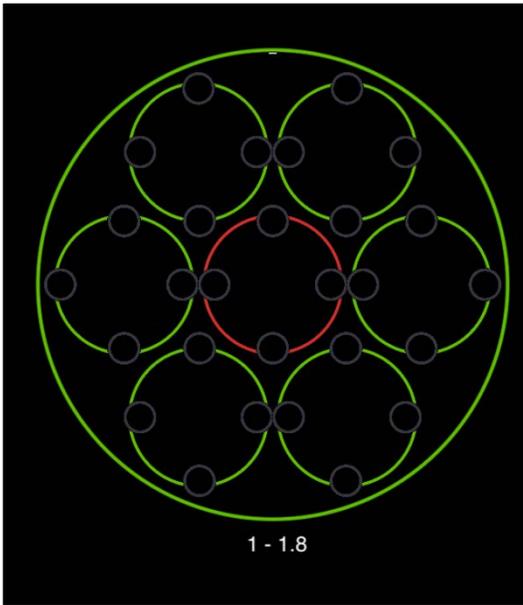
**ONLYX** Main and Sub Fixture ID patch example below for a single PROTEUS RAYZOR 760 fixture.

ID	Type	Address
1.0	RGBW Pixels Main	1
1.1	Pixel 1	22
1.2	Pixel 2	26
1.3	Pixel 3	30
1.4	Pixel 4	34
1.5	Pixel 5	38
1.6	Pixel 6	42
1.7	Pixel 7	46
1.8	SparkLED Main	50

101.1	SparkLED 1	53
101.2	SparkLED 2	54
101.3	SparkLED 3	55
101.4	SparkLED 4	56
...	...	...
101.28	SparkLED 28	80

# LIGHTING CONSOLE PATCH GUIDELINES

**ONLY** screen shots below illustrate Main and Sub Fixture ID patch for a single PROTEUS RAYZOR 760 fixture.



ID	Name	Type	Universe	Address	Invert
1		Rayzor 760 Pixel (Master)	1	1	
1.1		Rayzor 760 Pixel (Pixel 1)	Auto	Auto	
1.2		Rayzor 760 Pixel (Pixel 2)	Auto	Auto	
1.3		Rayzor 760 Pixel (Pixel 3)	Auto	Auto	
1.4		Rayzor 760 Pixel (Pixel 4)	Auto	Auto	
1.5		Rayzor 760 Pixel (Pixel 5)	Auto	Auto	
1.6		Rayzor 760 Pixel (Pixel 6)	Auto	Auto	
1.7		Rayzor 760 Pixel (Pixel 7)	Auto	Auto	
1.8		Rayzor 760 Pixel (SparkLED)	Auto	Auto	
101		Rayzor 760 SparkLED	1	51	
101.1		Rayzor 760 SparkLED (LED 1)	Auto	Auto	
101.2		Rayzor 760 SparkLED (LED 2)	Auto	Auto	
101.3		Rayzor 760 SparkLED (LED 3)	Auto	Auto	
101.4		Rayzor 760 SparkLED (LED 4)	Auto	Auto	
101.5		Rayzor 760 SparkLED (LED 5)	Auto	Auto	
101.6		Rayzor 760 SparkLED (LED 6)	Auto	Auto	
101.7		Rayzor 760 SparkLED (LED 7)	Auto	Auto	
101.8		Rayzor 760 SparkLED (LED 8)	Auto	Auto	
101.9		Rayzor 760 SparkLED (LED 9)	Auto	Auto	
101.10		Rayzor 760 SparkLED (LED 10)	Auto	Auto	
101.11		Rayzor 760 SparkLED (LED 11)	Auto	Auto	
101.12		Rayzor 760 SparkLED (LED 12)	Auto	Auto	
101.13		Rayzor 760 SparkLED (LED 13)	Auto	Auto	
101.14		Rayzor 760 SparkLED (LED 14)	Auto	Auto	
101.15		Rayzor 760 SparkLED (LED 15)	Auto	Auto	
101.16		Rayzor 760 SparkLED (LED 16)	Auto	Auto	
101.17		Rayzor 760 SparkLED (LED 17)	Auto	Auto	
101.18		Rayzor 760 SparkLED (LED 18)	Auto	Auto	
101.19		Rayzor 760 SparkLED (LED 19)	Auto	Auto	
101.20		Rayzor 760 SparkLED (LED 20)	Auto	Auto	
101.21		Rayzor 760 SparkLED (LED 21)	Auto	Auto	
101.22		Rayzor 760 SparkLED (LED 22)	Auto	Auto	
101.23		Rayzor 760 SparkLED (LED 23)	Auto	Auto	
101.24		Rayzor 760 SparkLED (LED 24)	Auto	Auto	
101.25		Rayzor 760 SparkLED (LED 25)	Auto	Auto	
101.26		Rayzor 760 SparkLED (LED 26)	Auto	Auto	
101.27		Rayzor 760 SparkLED (LED 27)	Auto	Auto	
101.28		Rayzor 760 SparkLED (LED 28)	Auto	Auto	

# LIGHTING CONSOLE PATCH GUIDELINES

**ONLYX** Groups example below for easier selection of a single PROTEUS RAYZOR 760 fixture.

Group Name	Group Content
All RGBW Pixels Main	1
All RGBW Pixels	1.1, 1.2, 1.3 ... 1.8
All SparkLEDs Main	1.8
All SparkLEDs	101.1 ,101.2 ... 101.28

**ONLYX** screen shot below illustrates Groups for a single PROTEUS RAYZOR 760 fixture.



# DMX CHANNEL FUNCTIONS AND VALUES

## RELATION PROTEUS RAYZOR 760™

### DMX Channel Values / Functions (80 Total DMX Channels)

**Supports Software Versions: ≥ 1.2.1**

Features subject to change without notice.

\*Rotation direction (Clockwise/Counterclockwise) and control of effects depends on head orientation and Pan/Tilt settings.

Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
<b>Main Fixture Control</b>							
1	1	1			<b>PAN</b>	Fade	127
				0-255	Movement		
2	2	2			<b>PAN FINE</b>	Fade	127
				0-255	Fine Movement		
3	3	3			<b>TILT</b>	Fade	127
				0-255	Movement		
4	4	4			<b>TILT FINE</b>	Fade	127
				0-255	Fine Movement		
5	5	5			<b>PAN ROTATE</b>	Fade	0
				0-2	Disabled		
				3-126	Rotating CW Fast to Slow		
				127-129	NO Rotation (Fixture stops at its current position)		
				130-253	Rotating CCW Slow to Fast		
254-255	NO Rotation (Fixture stops at its current position)						
6	6	6			<b>TILT ROTATE</b>	Fade	0
				0-2	Disabled		
				3-126	Rotating CW Fast to Slow		
				127-129	NO Rotation (Fixture stops at its current position)		
				130-253	Rotating CCW Slow to Fast		
254-255	NO Rotation (Fixture stops at its current position)						
7	7	7			<b>CTC</b>	Fade	0
				0-10	Disabled		
				11-171	Color Temperature (100K Steps) 2,000K to 10,000K ( <b>See CTC Table</b> )		
				172-255	10,000K		

Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
8	8	8			<b>COLOR WHEEL</b>	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						
	<b>COLOR SCROLL</b>						
180-201	CW Fast to Slow						
202-207	Stop						
208-229	CCW Slow to Fast						
230-234	Open						
	<b>RANDOM SLOTS</b>						
235-239	Fast						
240-244	Medium						
245-249	Slow						
250-255	Open						

Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
9	9	9			<b>STROBE</b>	Snap	50
				0-31	Shutter Closed		
				32-63	Shutter Open		
				64-95	Strobe Slow to Fast		
				96-127	Fast Close, Slow Open		
				128-159	Fast Open, Slow Close		
				160-191	Pulse Effects		
				192-223	Random Strobe Slow to Fast		
	224-255	Shutter Open					
10	10	10			<b>DIMMER</b>	Fade	0
				0-255	0 → 100%		
11	11	11			<b>DIMMER FINE</b>	Fade	0
				0-255	Fine Dimming		
12	12	12			<b>DIM MODES</b>	Snap	0
				0-20	Standard		
				21-40	Stage		
				41-60	TV		
				61-80	Architectural		
				81-100	Theatre		
				101-120	Stage 2		
					<b>DIMMER DELAY TIME</b>		
				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					

Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
13	13	13			<b>ZOOM</b>	Fade	128
				0 -215	Zoom Wide to Narrow		
				216-255	Overdrive Min to Max		
	14	14			<b>ZOOM FINE</b>	Fade	0
				0-255	Fine Zoom		
	15	15			<b>PAN / TILT SPEED</b>	Snap	0
				0-225	Max to Min Speed		
				226-235	Blackout When Pan / Tilt Moves		
				236-245	Blackout When All Wheels Change		
				246-255	No Function		

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Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
14	16	16			<b>CONTROL</b>	Snap	0
				0-10	Idle		
				11-12	PanTilt Shortest Path		
				13-14	PanTilt Continue Path		
				15-16	Pan Range 540		
				17-18	Pan Range 360		
				19-20	Tilt Range 270		
				21-22	Tilt Range 360		
				23-39	Idle		
				40-59	Fan Mode Silent		
				60-79	Fan Mode Auto		
				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						

Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
14	16	16			<b>CONTROL</b>	Snap	0
				131	1210		
				132	1220		
				133	1230		
				134	1240		
				135	1250		
				136	1260		
				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					

Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
14	16	16		169-200	Idle	Snap	0
				<b>ADDED WITH SOFTWARE UPDATE VERSION ≥1.2.2</b>			
				169-192	Idle		
				193-194	Hibernate Off		
				195-196	Hibernate		
				197-198	Home Position Before Power Off		
				199-200	Home Position Off		
				201-210	Dimmer Curve Linear (default)		
				211-220	Dimmer Curve Square		
				221-230	Dimmer Curve Inverse Square		
				231-240	Dimmer Curve S-Curve		
241-255	Idle						
15	17	17		<b>RGBW FX (See Table)</b>		Snap	0
				0-255	FX Selection 1 -255		
16	18	18		<b>RGBW FX SPEED</b>		Fade	160
				0-126	Rev Fast to Slow		
				127-128	Stop		
17	19	19		<b>SparkLED FX (See Table)</b>		Snap	0
				0-255	FX Selection 1 -255		
18	20	20		<b>SparkLED FX SPEED</b>		Fade	160
				0-126	Rev Fast to Slow		
				127-128	Stop		
19	21	21		<b>FX OFFSET</b>		Snap	0
				0	NO Sync		
				1	Fixture Offset 10 Degree		
				2	Fixture Offset 20 Degree		
				3-34	Fixture Offset...		
				35	Fixture Offset 350 Degree		
				36	Synchronized		
				37-100	No Function		
				101-120	Random Fixtures		
121-140	Random Duration						
141-255	Random Pixels						

Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
<b>RGBW Pixel Control</b>							
20	22	22			<b>Red</b>	Fade	255
				0-255	0 → 100%		
21	23	23			<b>Green</b>	Fade	255
				0-255	0 → 100%		
22	24	24			<b>Blue</b>	Fade	255
				0-255	0 → 100%		
23	25	25			<b>White</b>	Fade	255
				0-255	0 → 100%		
	26	26			<b>Red 2</b>	Fade	255
				0-255	0 → 100%		
	27	27			<b>Green 2</b>	Fade	255
				0-255	0 → 100%		
	28	28			<b>Blue 2</b>	Fade	255
				0-255	0 → 100%		
	29	29			<b>White 2</b>	Fade	255
				0-255	0 → 100%		
	30	30			<b>Red 3</b>	Fade	255
				0-255	0 → 100%		
	31	31			<b>Green 3</b>	Fade	255
				0 - 255	0 → 100%		
	32	32			<b>Blue 3</b>	Fade	255
				0-255	0 → 100%		
	33	33			<b>White 3</b>	Fade	255
				0 - 255	0 → 100%		
	34	34			<b>Red 4</b>	Fade	255
				0-255	0 → 100%		
	35	35			<b>Green 4</b>	Fade	255
				0-255	0 → 100%		
	36	36			<b>Blue 4</b>	Fade	255
				0-255	0 → 100%		
	37	37			<b>White 4</b>	Fade	255
				0-255	0 → 100%		

Standard	Pixels	Extended		Value	Function	Fade Status	Default Value
<b>RGBW Pixel Control</b>							
	38	38			<b>Red 5</b>	Fade	255
				0-255	0 → 100%		
	39	39			<b>Green 5</b>	Fade	255
				0-255	0 → 100%		
	40	40			<b>Blue 5</b>	Fade	255
				0-255	0 → 100%		
	41	41			<b>White 5</b>	Fade	255
				0-255	0 → 100%		
	42	42			<b>Red 6</b>	Fade	255
				0-255	0 → 100%		
	43	43			<b>Green 6</b>	Fade	255
				0-255	0 → 100%		
	44	44			<b>Blue 6</b>	Fade	255
				0-255	0 → 100%		
	45	45			<b>White 6</b>	Fade	255
				0-255	0 → 100%		
	46	46			<b>Red 7</b>	Fade	255
				0-255	0 → 100%		
	47	47			<b>Green 7</b>	Fade	255
				0-255	0 → 100%		
	48	48			<b>Blue 7</b>	Fade	255
				0-255	0 → 100%		
	49	49			<b>White 7</b>	Fade	255
				0-255	0 → 100%		

Standard	Pixels	Extended	SparkLED	Value	Function	Fade Status	Default Value
<b>SparkLED Control</b>							
SparkLED is not available as a mode in the fixture menu but must be provided as a console control profile for easy programming of the fixture. Use the Rayzor 760 in Extended mode and patch appropriate parts of the RGBW Pixels and SparkLED fixtures on your control system to access all 80 channels. See the Lighting Console Patch Guidelines section for further instructions.							
24	50	50			<b>STROBE</b>	Snap	50
				0-31	Shutter CLOSED		
				32-63	Shutter OPEN		
				64-95	Strobe SLOW to FAST		
				96-127	FAST Close, SLOW Open		
				128-159	FAST Open, SLOW Close		
				160-191	Pulse Effects		
				192-223	Random Strobe ALL SLOW to FAST		
				224-254	Random Strobe Pixels SLOW to FAST		
				255	Sync Dimmer and Strobe with Main		
25	51	51			<b>DIMMER</b>	Fade	0
	52	52		0-255	0 → 100%		
					<b>DIMMER FINE</b>	Fade	0
				0-255	Fine Dimming		
		53	1		<b>SparkLED #1 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		54	2		<b>SparkLED #2 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		55	3		<b>SparkLED #3 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		56	4		<b>SparkLED #4 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		57	5		<b>SparkLED #5 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		58	6		<b>SparkLED #6 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		59	7		<b>SparkLED #7 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		60	8		<b>SparkLED #8 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		61	9		<b>SparkLED #9 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		62	10		<b>SparkLED #10 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		63	11		<b>SparkLED #11 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		64	12		<b>SparkLED #12 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		65	13		<b>SparkLED #13 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		66	14		<b>SparkLED #14 Dimmer</b>	Fade	255
				0-255	0 → 100%		

Standard	Pixels	Extended	SparkLED	Value	Function	Fade Status	Default Value
<b>SparkLED Control</b>							
		67	15		<b>SparkLED #15 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		68	16		<b>SparkLED #16 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		69	17		<b>SparkLED #17 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		70	18		<b>SparkLED #18 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		71	19		<b>SparkLED #19 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		72	20		<b>SparkLED #20 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		73	21		<b>SparkLED #21 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		74	22		<b>SparkLED #22 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		75	23		<b>SparkLED #23 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		76	24		<b>SparkLED #24 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		77	25		<b>SparkLED #25 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		78	26		<b>SparkLED #26 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		79	27		<b>SparkLED #27 Dimmer</b>	Fade	255
				0-255	0 → 100%		
		80	28		<b>SparkLED #28 Dimmer</b>	Fade	255
				0-255	0 → 100%		

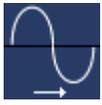
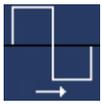
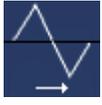
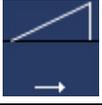
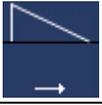
COLOR TEMPERATURE CONTROL TABLE					
Color Temperature	DMX Value	Color Temperature	DMX Value	Color Temperature	DMX Value
2000	11	4700	65	7400	119
2050	12	4750	66	7450	120
2100	13	4800	67	7500	121
2150	14	4850	68	7550	122
2200	15	4900	69	7600	123
2250	16	4950	70	7650	124
2300	17	5000	71	7700	125
2350	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		

# FX GENERATOR GUIDELINES

Selection and control of the integrated FX on the PROTUES RAYZOR 760 is found in the Main Fixture section. All FX are available even in the smallest DMX control modes. (see below)

Value	Function
	<b>RGBW FX (See Table)</b>
0-255	FX Selection 1 -255
	<b>RGBW FX Speed</b>
0-126	Rev Fast to Slow
127-128	Stop
129-255	Slow to Fast
	<b>SparkLED FX (See Table)</b>
0-255	FX Selection 1 -255
	<b>SparkLED FX Speed</b>
0-126	Rev Fast to Slow
127-128	Stop
129-255	Slow to Fast

FX for RGBW and SparkLED contain a selection channel to recall the desired pattern. The pattern direction and speed is then adjusted using the associated Speed channels. FX can run forward or reverse and can also be frozen at any time by using "Stop". The FX tables show 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 steppy 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. (see below)

<b>Sinewave</b> (default)	
<b>Step</b>	
<b>Sawtooth</b>	
<b>Ramp Up</b>	
<b>Ramp Down</b>	

# FX GENERATOR GUIDELINES

In addition to FX direction and speed control, a Sync channel allows to offset or randomize the fixtures or the FX steps. (see below)

Value	Function
	<b>FX Offset</b>
0	NO Sync
1	Fixture Offset 10 Degree
2	Fixture Offset 20 Degree
3-34	Fixture Offset...
35	Fixture Offset 350 Degree
36	Synchronized
37-100	NO Function
101-120	Random Fixture Offset
121-140	Random Pixel Order
141-255	Random Steps

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**

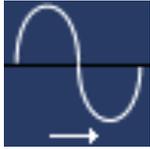
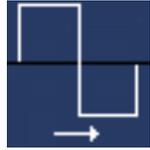
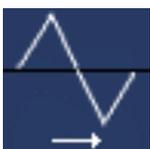
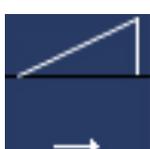
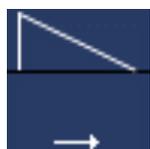
The actual FX steps are randomized. This shuffling of the fixture order is done once, the fixture will use this shuffled order across all FX until changed.

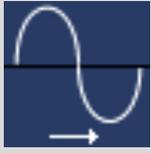
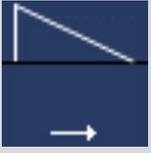
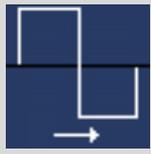
## **Random Steps**

Every step is randomly chosen every time, giving the most random looks possible.

To reshuffle the randomization set the channel to Idle and reselect the desired random option.

The FX system of the PROTEUS RAYZOR 760 allows many different combinations by changing the curves, offsets and speed parameters. The RGBW and SparkLED systems are separate, and by adjusting color, dimming and strobe channels there are endless creative designs possible.

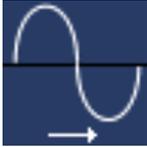
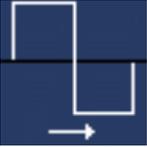
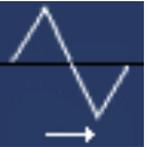
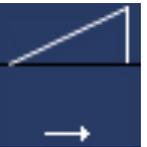
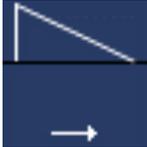
RGBW FX TABLE				
Type	Slot	DMX	Name	FX Adjustment
Waveform	0	0	OFF	
	1	1	Sinewave (default) 	
	2	2	Step 	
	3	3	Sawtooth 	
	4	4	Ramp Up 	
	5	5	Ramp Down 	
	6-10	6-10	No Function	

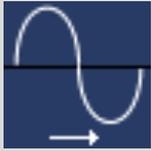
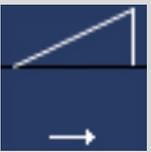
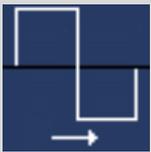
RGBW FX TABLE				
Type	Slot		Name	FX Adjustment
Waveform	REVISED WITH SOFTWARE UPDATE VERSION $\geq 1.2.2$			
	0	0	OFF	
	1	1	Sinewave Cross 	
	2	2	Sinewave Full 	
	3	3	Sawtooth Cross 	
	4	4	Sawtooth Full 	
	5	5	Ramp Up 	
	6	6	Ramp Down 	
	7	7	Step 	
	8-10	8-10	No Function	

RGBW FX TABLE				
Type	Slot	DMX	Name	FX Adjustment
Intensity	11	11	Single	Reverse, Stop, Forward
	12	12	Single Bounce	Reverse, Stop, Forward
	13	13	Snake	Reverse, Stop, Forward
	14	14	Snake Bounce	Reverse, Stop, Forward
	15	15	Rows	Reverse, Stop, Forward
	16	16	Rows Bounce	Reverse, Stop, Forward
	17	17	Column	Reverse, Stop, Forward
	18	18	Column Bounce	Reverse, Stop, Forward
	19	19	Columns 2	Reverse, Stop, Forward
	20	20	Slash	Reverse, Stop, Forward
	21	21	Backslash	Reverse, Stop, Forward
	22	22	Slash Back	Reverse, Stop, Forward
	23	23	<>	Reverse, Stop, Forward
	24	24	><	Reverse, Stop, Forward
	25	25	>>	Reverse, Stop, Forward
	26	26	<<	Reverse, Stop, Forward
	27	27	Rotating Bar	Reverse, Stop, Forward
	28	28	Rotating Dot	Reverse, Stop, Forward
	29	29	Rotating 2 Dot	Reverse, Stop, Forward
	30	30	Ring 2 Cell	Reverse, Stop, Forward
	31	31	Ring 2 Cell Overlap	Reverse, Stop, Forward
	32	32	Ring 3 Cell Blend	Reverse, Stop, Forward
	33	33	Ring - Center Fade	Reverse, Stop, Forward
	34	34	X - Bar	Reverse, Stop, Forward
	35	35	Diagonals	Reverse, Stop, Forward
	36	36	Arrow Left	Reverse, Stop, Forward
	37	37	Arrow Right	Reverse, Stop, Forward
	38	38	2 Pixels	Reverse, Stop, Forward
	39	39	3 Pixels	Reverse, Stop, Forward
	40	40	4 Pixels	Reverse, Stop, Forward
	41	41	1,2,3,4 pixels	Reverse, Stop, Forward
	42	42	Ring Build	Reverse, Stop, Forward
	43	43	Ring Build Erase	Reverse, Stop, Forward
	44	44	Ring Build Erase 2	Reverse, Stop, Forward
	45	45	Chase 1	Reverse, Stop, Forward
	46	46	Chase 2	Reverse, Stop, Forward
	47	47	Chase 3	Reverse, Stop, Forward
	48	48	Chase 4	Reverse, Stop, Forward
	49	49	Chase 5	Reverse, Stop, Forward
	50	50	Chase 6	Reverse, Stop, Forward
	51	51	Chase 7	Reverse, Stop, Forward
	52	52	Chase 8	Reverse, Stop, Forward
	53	53	Chase 9	Reverse, Stop, Forward
	54	54	Chase 10	Reverse, Stop, Forward
	55-59	55-59	No Function	No Function
	60	60	Center Chase	Reverse, Stop, Forward
	61	61	Center Chase 2	Reverse, Stop, Forward
	62-100	62-100	No Function	No Function

RGBW FX TABLE				
Type	Slot	DMX	Name	FX Adjustment
Intensity	<b>REVISED WITH SOFTWARE UPDATE VERSION ≥1.2.2</b>			
	55	55	Center Chase	Reverse, Stop, Forward
	56	56	Center Chase 2	Reverse, Stop, Forward
	57	57	Alternate	Reverse, Stop, Forward
	58	58	Burst SparkLED	Reverse, Stop, Forward
	59	59	Burst RGBW	Reverse, Stop, Forward
	60	60	Strobe Alternate	Reverse, Stop, Forward
	62	62	Lens/SparkLED Alternate	Reverse, Stop, Forward
	66-100	66-100	No Function	No Function
Static Patterns	101	101	Top 2	Disabled
	102	102	Center 3	Disabled
	103	103	Bottom 2	Disabled
	104	104	Top and Bottom	Disabled
	105	105	X	Disabled
	106	106	Ring	Disabled
	107	107	Center Dot	Disabled
	108	108	Slash	Disabled
	109	109	Backslash	Disabled
	110	110	Arrow Left	Disabled
	111	111	Arrow Right	Disabled
	112	112	<	Disabled
	113	113	>	Disabled
		114-130	114-130	No Function

RGBW FX TABLE				
Type	Slot	DMX	Name	FX Adjustment
	131-255	131-255	No Function	No Function
Color	<b>REVISED WITH SOFTWARE UPDATE VERSION ≥1.2.2</b>			
	131	131	RGBW Cells	Reverse, Stop, Forward
	132	132	RGBWCMY Cells	Reverse, Stop, Forward
	133	133	Color Wheel Cells	Reverse, Stop, Forward
	134	134	RGBW Rows	Reverse, Stop, Forward
	135	135	RGBWCMY Rows	Reverse, Stop, Forward
	136	136	Color Wheel Rows	Reverse, Stop, Forward
	137	137	RGBW Columns	Reverse, Stop, Forward
	138	138	RGBWCMY Columns	Reverse, Stop, Forward
	139	139	Color Wheel Columns	Reverse, Stop, Forward
	140	140	RGBW Single Row	Reverse, Stop, Forward
	141	141	RGBWCMY Single Row	Reverse, Stop, Forward
	142	142	Color Wheel Single Row	Reverse, Stop, Forward
	143	143	RGBW Single Columns	Reverse, Stop, Forward
	144	144	RGBWCMY Single Columns	Reverse, Stop, Forward
	145	145	Color Wheel Single Columns	Reverse, Stop, Forward
	146	146	RGB Rows	Reverse, Stop, Forward
	147	147	RGB Columns	Reverse, Stop, Forward
	148	148	Red White Cells	Reverse, Stop, Forward
	149	149	Green White Cells	Reverse, Stop, Forward
	150	150	Blue White Cells	Reverse, Stop, Forward
	151	151	Red Green Cells	Reverse, Stop, Forward
	152	152	Red Blue Cells	Reverse, Stop, Forward
	153	153	Blue Green Cells	Reverse, Stop, Forward
	154	154	Ring - Center Mix to Color Wheel	Reverse, Stop, Forward
	155	155	Random White Cell	Reverse, Stop, Forward
	156	156	Random White Row	Reverse, Stop, Forward
	157	157	Random White Column	Reverse, Stop, Forward
	158	158	White Flash	Reverse, Stop, Forward
	159	159	Red Flash	Reverse, Stop, Forward
	160	160	Green Flash	Reverse, Stop, Forward
	161	161	Blue Flash	Reverse, Stop, Forward
162	162	Color Wheel Flash	Reverse, Stop, Forward	
163	163	Alternate Color	Reverse, Stop, Forward	
	164-255	164-255	No Function	No Function

SparkLED FX TABLE				
Type	Slot	DMX	Name	FX Adjustment
Waveform	0	0	OFF	
	1	1	Sinewave (default) 	
	2	2	Step 	
	3	3	Sawtooth 	
	4	4	Ramp Up 	
	5	5	Ramp Down 	
	6-10	6-10	No Function	

SparkLED FX TABLE				
Type	Slot	DMX	Name	FX Adjustment
<b>Waveform</b>	<b>REVISED WITH SOFTWARE UPDATE VERSION ≥1.1.1</b>			
	0	0	OFF	
	1	1	<b>Sinewave Cross (default)</b> 	
	2	2	<b>Sinewave Full</b> 	
	3	3	<b>Sawtooth Cross</b> 	
	4	4	<b>Sawtooth Full</b> 	
	5	5	<b>Ramp Up</b> 	
	6	6	<b>Ramp Down</b> 	
	7	7	<b>Step</b> 	
	8-10	8-10	No Function	

SparkLED FX TABLE				
Type	Slot	DMX	Name	FX Adjustment
<b>SparkLED FX</b>	11	11	Starfield	Reverse, Stop, Forward
	12	12	1 Pixel	Reverse, Stop, Forward
	13	13	2 Pixels	Reverse, Stop, Forward
	14	14	3 Pixels	Reverse, Stop, Forward
	15	15	4 pixels	Reverse, Stop, Forward
	16	16	5 pixels	Reverse, Stop, Forward
	17	17	7 pixels	Reverse, Stop, Forward
	18	18	14 pixels	Reverse, Stop, Forward
	19	19	Single Row	Reverse, Stop, Forward
	20	20	3 Rows	Reverse, Stop, Forward
	21	21	Single Column	Reverse, Stop, Forward
	22	22	3 Column	Reverse, Stop, Forward
	23	23	Pixel Ring Chase	Reverse, Stop, Forward
	24	24	Pixel Row Chase	Reverse, Stop, Forward
	25	25	Pixel Ring Chase 2	Reverse, Stop, Forward
	26	26	Center Out	Reverse, Stop, Forward
	27	27	Fireworks	Reverse, Stop, Forward
	28	28	Ring	Reverse, Stop, Forward
	29	29	Row	Reverse, Stop, Forward
	30	30	Snake	Reverse, Stop, Forward
	31-90	31-90	No Function	No Function
<b>SparkLED Lens Combos</b>	91	91	No Function	No Function
	92	92		
	93	93		
	94	94		
	95	95		
	96	96		
	97	97		
	98	98		
	99	99		
	100	100		

SparkLED FX TABLE				
Type	Slot	DMX	Name	FX Adjustment
<b>Full Lens Patterns (all SparkLED in the lens # turn on together)</b>	101	101	Single	Reverse, Stop, Forward
	102	102	Single Bounce	Reverse, Stop, Forward
	103	103	Snake	Reverse, Stop, Forward
	104	104	Snake Bounce	Reverse, Stop, Forward
	105	105	Rows	Reverse, Stop, Forward
	106	106	Rows Bounce	Reverse, Stop, Forward
	107	107	Column	Reverse, Stop, Forward
	108	108	Column Bounce	Reverse, Stop, Forward
	109	109	Columns 2	Reverse, Stop, Forward
	110	110	Slash	Reverse, Stop, Forward
	111	111	Backslash	Reverse, Stop, Forward
	112	112	Slash Back	Reverse, Stop, Forward
	113	113	<>	Reverse, Stop, Forward
	114	114	><	Reverse, Stop, Forward
	115	115	>>	Reverse, Stop, Forward
	116	116	<<	Reverse, Stop, Forward
	117	117	Rotating Bar	Reverse, Stop, Forward
	118	118	Rotating Dot	Reverse, Stop, Forward
	119	119	Rotating 2 Dot	Reverse, Stop, Forward
	120	120	Ring 2 Cell	Reverse, Stop, Forward
	121	121	Ring 2 Cell Overlap	Reverse, Stop, Forward
	122	122	Ring 3 Cell Blend	Reverse, Stop, Forward
	123	123	Ring - Center Fade	Reverse, Stop, Forward
	124	124	X - Bar	Reverse, Stop, Forward
	125	125	Diagonals	Reverse, Stop, Forward
	126	126	Arrow Left	Reverse, Stop, Forward
	127	127	Arrow Right	Reverse, Stop, Forward
	128	128	2 Pixels	Reverse, Stop, Forward
	129	129	3 Pixels	Reverse, Stop, Forward
	130	130	4 Pixels	Reverse, Stop, Forward
	131	131	1,2,3,4 pixels	Reverse, Stop, Forward
	132	132	Ring Build	Reverse, Stop, Forward
	133	133	Ring Build Erase	Reverse, Stop, Forward
	134	134	Ring Build Erase 2	Reverse, Stop, Forward
	135	135	Chase 1	Reverse, Stop, Forward
	136	136	Chase 2	Reverse, Stop, Forward
	137	137	Chase 3	Reverse, Stop, Forward
	138	138	Chase 4	Reverse, Stop, Forward
	139	139	Chase 5	Reverse, Stop, Forward
	140	140	Chase 6	Reverse, Stop, Forward
	141	141	Chase 7	Reverse, Stop, Forward
	142	142	Chase 8	Reverse, Stop, Forward
	143	143	Chase 9	Reverse, Stop, Forward
	144	144	Chase 10	Reverse, Stop, Forward
	145	145	Center Chase	Reverse, Stop, Forward
	146	146	Center Chase 2	Reverse, Stop, Forward
147-200	147-200	No Function	No Function	

<b>SparkLED FX TABLE</b>				
<b>Type</b>	<b>Slot</b>	<b>DMX</b>	<b>Name</b>	<b>FX Adjustment</b>
<b>Full Lens Static Patterns</b> (all SparkLEDs in lens turn on together)	201	201	Top 2	Disabled
	202	202	Center 3	Disabled
	203	203	Bottom 2	Disabled
	204	204	Top and Bottom	Disabled
	205	205	X	Disabled
	206	206	Ring	Disabled
	207	207	Center Dot	Disabled
	208	208	Slash	Disabled
	209	209	Backslash	Disabled
	210	210	Arrow Left	Disabled
	211	211	Arrow Right	Disabled
	212	212	<	Disabled
	213	213	>	Disabled
	214-225	214-225	No Function	No Function
<b>SparkLED Pattern</b>	226	226	Row 1	Disabled
	227	227	Row 2	Disabled
	228	228	Row 3	Disabled
	229	229	Row 4	Disabled
	230	230	Row 5	Disabled
	231	231	Row 6	Disabled
	232	232	Row 7	Disabled
	233	233	Column 1	Disabled
	234	234	Column 2	Disabled
	235	235	Column 3	Disabled
	236	236	Column 4	Disabled
	237	237	Column 5	Disabled
	238	238	Column 6	Disabled
	239	239	Column 7	Disabled
	240	240	Ring 1	Disabled
	241	241	Ring 2	Disabled
242	242	Ring 3	Disabled	
243-255	243-255	No Function	No Function	

# 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” where 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 are subject to change without any prior written notice.	
ERROR CODES	DESCRIPTION
PAN 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 a reset function.
TILT Er	
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).

# SPECIFICATIONS

## SOURCE

(7) 60W Osram RGBW LEDs  
(28) 2W White SparkLED™  
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

7,200 Total Lumen Output  
CRI 80  
Zoom Range 5° - 77°  
Beam Angle 5.4° - 56.4°  
Field Angle 8.1° - 74°

## EFFECTS

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

## CONTROL / CONNECTIONS

3 DMX Channel Modes (25 / 52 / 80 channels)  
360° Continuous Pan and 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  
With Wired Digital Communication Network

## SIZE / WEIGHT

Length: 14.31 in (363.4mm)  
Width: 10.24 in (259.97mm)  
Height: 19.43 in (493.44mm)  
Weight: 41.0 lbs. (18.6kg)

## ELECTRICAL / THERMAL

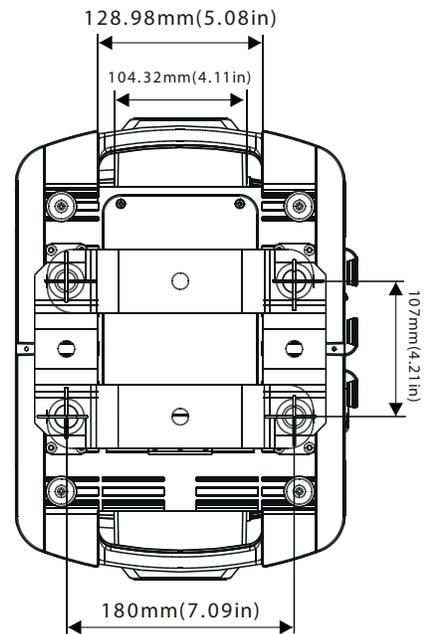
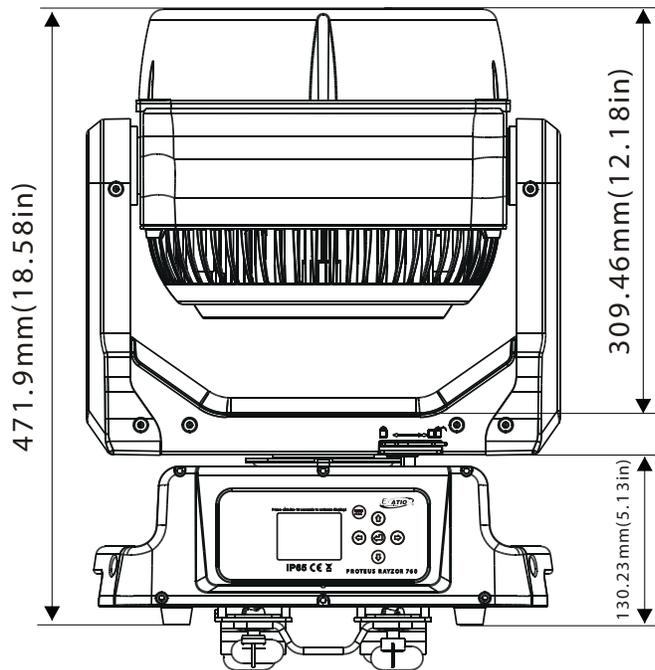
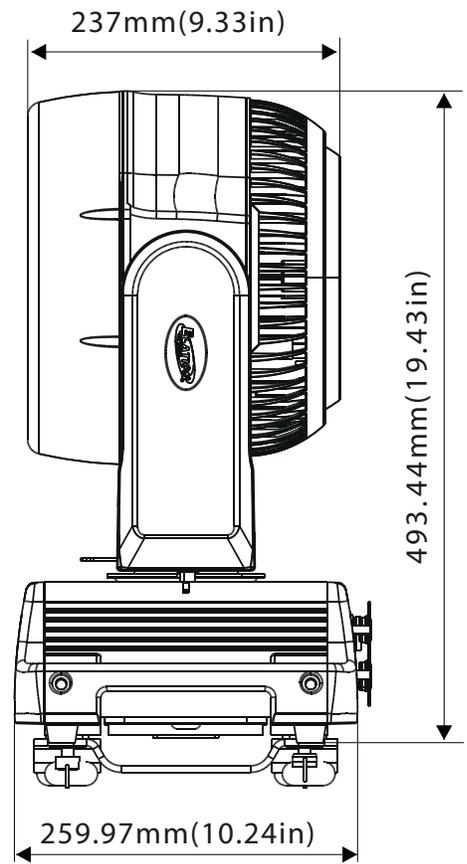
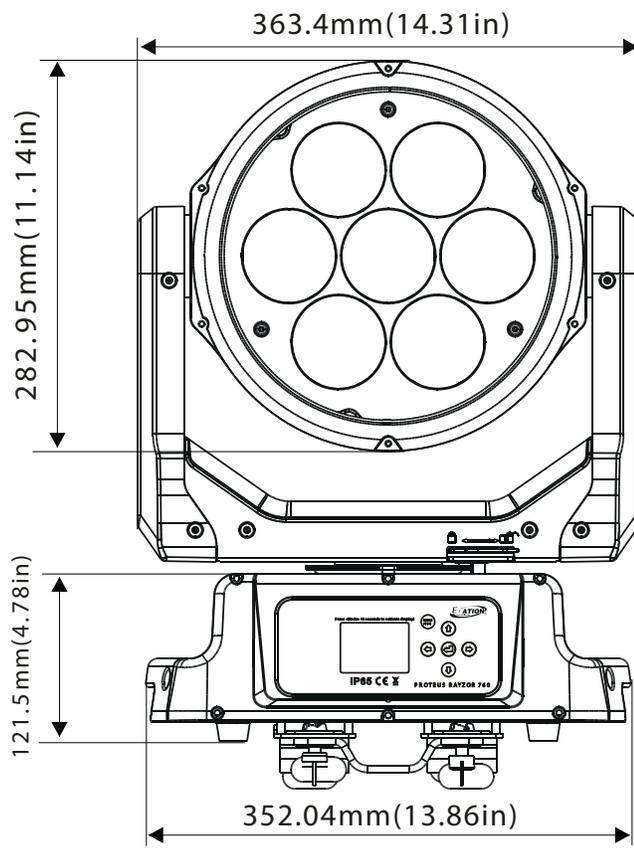
AC 100-240V 50/60Hz  
700W Max Power Consumption  
BTU/hr (+/- 10%) 2387

## APPROVALS / RATINGS



Specifications and improvements in the design of this unit and this manual are subject to change without notice.

# DIMENSIONAL DRAWINGS



Specifications and improvements in the design of this unit and this manual are subject to change without notice.

# OPTIONAL ACCESSORIES

ORDER CODE	ITEM
IP TESTER	IP Fixture Vacuum and Pressure Leak Tester
TRIGGER CLAMP	Heavy Duty Wrap Around Hook Style Clamp
STR527	5 ft. (1.5m) IP65 Seetronic 5pin XLR 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 determined 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.
- Increase 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.

## Europe Energy Saving Notice

### 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



