Design Spot 1400E

Elation Professional
6122 S. Eastern Ave
Los Angeles, Ca. 90040

CONTENTS

1. GENERAL INFORMATION

INTRODUCTION: Congratulations, you have just purchased one of the most innovative and reliable lighting fixtures on the market today! The Design Spot 1400E,™ has been designed to perform reliably for years when the guidelines in this booklet are followed. Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this unit. These instructions contain important information regarding safety during use and maintenance.

UNPACKING: Thank you for purchasing the Design Spot 1400E™ by Elation Professional®. Every Design Spot 1400E™ has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this unit to your dealer without first contacting customer support at the number listed below.

CUSTOMER SUPPORT: Elation Professional® provides a customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.elationlighting.com for any comments or suggestions. For service related issue please contact Elation Professional®. Service Hours are Monday through Friday 8:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice: (323) 582-3322
Fax: (323) 832-9142
E-mail: support@elationlighting.com
Forum: www.ElationLighting.com/forum

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty.

Please do not discard the shipping carton in the trash, keep for warranty repair. Please recycle whenever possible.

WARRANTY REGISTRATION*: The Design Spot 1400E™ carries a two year (730 days) limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Items returned without a R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain a R.A. number by contacting customer support at (323) 213-4593.
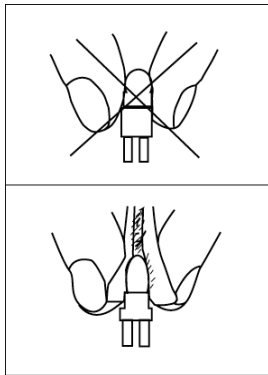
DISCHARGE LAMP WARNING*: This fixture is fitted with a discharge lamp, which is highly susceptible to damage if improperly handled. Never touch the lamp with your bare hands, as the oil from your hands will shorten lamp life. Also, never move the fixture until the lamp has had ample time to cool. Remember, lamps are not covered under warranty conditions.

UV RADIATION: This fixture emits intense UV radiation, which is harmful to the eyes and skin. The intense luminance of the lamp can cause severe damage to the retina. Never operate this fixture with the protective covers removed, these covers have been specially designed to shield against UV radiation.

Epileptic Warning: *Those suffering from epilepsy should avoid looking directly into the lamp at all times.*

Avoid switching the fixture on and off repeatedly in short intervals, as this will reduce lamp life and intensity.

To achieve the intensity associated with discharge lamps, these lamps use a gas sealed in a

high-pressure environment to emit a brilliant output. Due to the high pressure involved with the construction of the lamp, the lamp may explode during prolonged extensive use. This risk is increased with age; added care is encouraged when dealing with older lamps. Thus, lamp should always be replaced at the end of their recommended duty cycle. Extreme caution should be used when operated this or any fixture fitted with a gas discharge lamp.

Never open this fixture while in use!

During the initial operation of this fixture, a light smoke or smell may emit from the interior of the fixture. This is a normal process and is caused by excess paint in the interior of the casing burning off from the heat associated with the lamp and will decrease gradually over time.

This device falls under protection-class 1. Therefore it is essential that the device be grounded properly.

Only qualified personnel should perform all electrical connections.

Be sure the available voltage matches the voltage requirements of the unit.

Be sure the power cord is never crimped or damaged. If the power cord is damaged, replace it immediately with a new one of similar power rating.

Always disconnect from main power before performing any type of service or any cleaning procedure.

Only handle the power cord by the plug. Never pull out the plug by tugging the wire portion of the cord.

Please be aware that damages caused by manual modifications to the device are not subject to warranty.

2. SAFETY INSTRUCTIONS

The Design Spot 1400E™ is an extremely sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow the guidelines in this manual. The manufacturer of this device will not accept responsibility for damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual.

1. Always be sure that the fan and the air inlets remain clean and are never blocked. Allow about 6" (15cm) between this fixture and other devices or a wall to allow for proper cooling.

2. Never touch the fixture during normal operation. This can cause severe personal injuries and/or damage to the fixture.

3. Be sure to unplug the Design Spot 1400E™ from the power outlet before performing any service related issues.

4. Lamp Replacement; Please wait at least 15 minutes after disconnecting the main power before you open the Design Spot 1400E™. To prevent personal injury, never touch the lamp if you are not absolutely sure it has cooled.

5. Never look directly into the lamp beam. You risk injury to your retina, which may induce blindness.

6. Be sure to track and record the lamp running time. The lamp should be changed at the end of the specified lamp life, regardless of lamp output. You may also have to change the lamp if it shows any deformations or damage. The same is with all glass components, color filters, lenses and mirrors.

7. For safe operation, follow the Installation guide described in chapter five of this manual. Operating the Design Spot 1400E™ without suited safety aids such as safety cables or clamps can increase the risk of damage and/or personal injury.

8. Qualified and certified personnel should only perform installation.

9. When mounting this fixture, use only the original rigging parts included with this fixture. Any structural modification will void the original manufactures warranty and

may increase the risk of damage and/or personal injury.

10. To reduce the risk of fire or electric shock, do not expose this fixture to rain or moisture.

11. Do not attempt to operate this fixture if the power cord has become damaged or frayed.

Important Notice: Damages resulting from the disregard of safety and general user instructions found in this user manual are not subject to any warranty claims.

3. FEATURES

- Pan 630° or 540° (User selectable) / Tilt 265°

- 30 Built-In Color Preset Macros

- 3 operation mode: DMX Controlled, Stand-Alone or Sound Activated

- 2 Gobo Wheels (Indexable/Replaceable)

  - Wheel 1: 5 Rotating Gobos plus Open

  - Wheel 2: 5 Fixed Gobos plus Open

- 1 Color Wheel (Replaceable Filters), 4 Colors plus CTB, UV & Open

- CMY & CTO Variable Color Mixing for Infinite Color Possibilities

- Easy to Navigate, Full Color, On-Board LCD Menu (may be turned 180°)

- Strobe Effect: 1~10 flashes per second

- Motorized Focus (Near to Far)

- Brilliant Phillips MSR Gold 1200 FastFit Lamp (1200w / 6300K / 750Hrs / 95,000Lm)

- Linear Dimmer from 0%~100%

- 240v ~ 50/60Hz Operation

- Variable, Linear Frost Filter (0% ~ 100%)

- RDMX (Remote DMX addressing from any DMX console)

- Auto test for all functions

- Automatic Pan/Tilt Correction

- Motorized Linear Zoom (15° ~ 32°)

- Glass Dichroic Reflector for Even Lamp Output

- Modular Design for easy service and maintenance

- Battery Buffered Display System

- USITT DMX-512 Complaint

  - 25 DMX Channels (16bit Operation)

  - 23 DMX Channels (8bit Operation)

- 8 User Assignable Program Presets - Internal Program: Edit and save programs to the incorporated EPROM. Maximum of 48 scenes.

- Built-In DMX Recorder, Stores Scenes from External DMX Controller

4. GENERAL GUIDELINES

This fixture is a professional lighting effect designed for use on stage, in nightclubs, in theatres, etc. Do not attempt operation or installation without a proper knowledge on how to do so.

This fixture was designed for indoor use only. Use of this fixture outdoors may void the manufactures warranty.

Consistent operational breaks may ensure that the fixture will function properly for many years to come.

Do not shake the fixture around. Avoid brute force when installing or operating the device.

While choosing an installation location, please be sure that the fixture will not be exposed to extreme heat, moisture or dust. The minimum distance between the fixture and a wall or flat surface should be at least 0.5 meter (about 1.5ft).

Always install the fixture with an appropriate safety cable. When installing the fixture in a suspended environment always be sure to use mounting hardware no less than M10 x 25 mm, also be sure the hardware is insert in the pre-arranged screw holes in the base of the fixture.

When using the quick release "Omega" cam-lock system, be sure the four quick lock fasteners are locked in the quick lock holes correctly.

Do not attempt to operate this fixture until you have familiarized yourself with its functions.

Do not permit operation by persons not qualified for operating this type of theatrical fixture, as most damages are the result of operations by person unfamiliar with the operations of these types of effects.

If service is ever need and if possible, please use the original packaging to transport the fixture in for service.

5. FIXTURE OVERVIEW
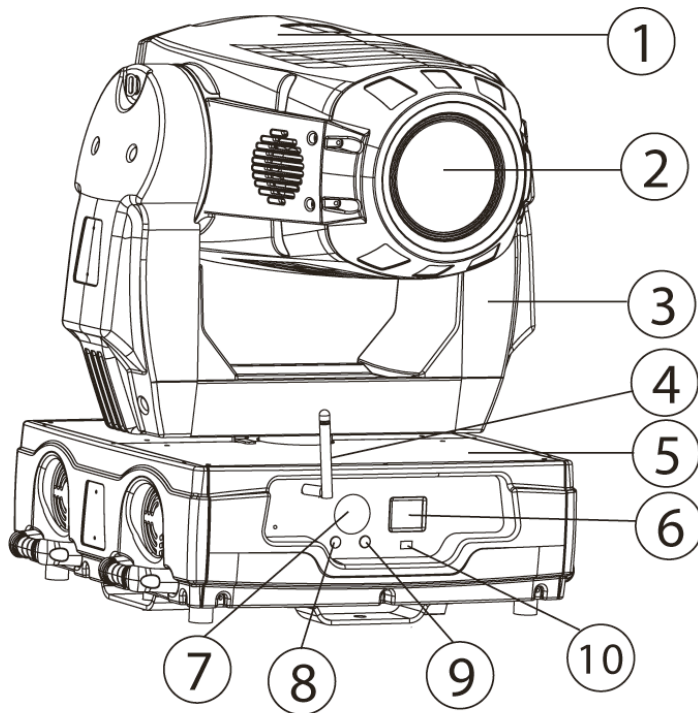
1. Head

2. Output Lens

3. Yoke

4. Antenna – Wireless DMX

5. Base

6. Full Color LC-Display

7. Menu Jog Wheel

8. Mode/esc Button

9. Enter Button

10. Software update socket
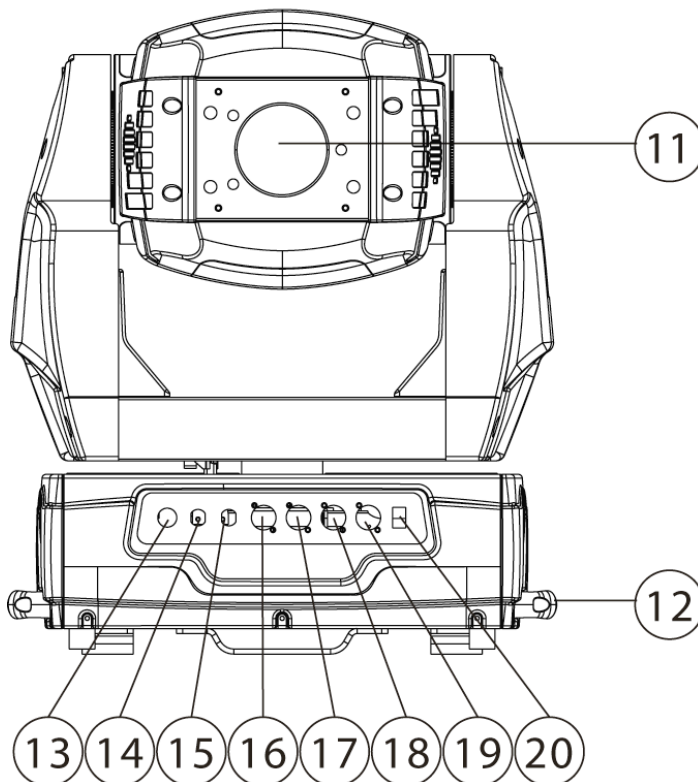
11. Lamp Cover

12. Carrying Handle

13. Power Cord

14. Fuse 1 - Lamp

15. Fuse 2 - Electronics

16. 3-Pin DMX Output

17. 3-Pin DMX Input

18. 5-Pin DMX Output

19. 5-Pin DMX Input

20. Power Switch

6. LAMP INSTALLATION INSTRUCTIONS

For a proper and safe lamp change, please follow the instructions in this chapter carefully.

Safety Regulations

- To prevent accidental shock disconnect the unit's main power supply.

- Allow the unit to cool for at least 15 minutes before attempting any type of service.

- Before you put the Design Spot 1400E™ into operation after a lamp change or service, be sure all covers have been replaced and/or closed and secured. Operating the fixture with the covers removed risk damage to the retina and exposure to harmful UV radiation!

- Always replace the lamp with an approved replacement type. Always replace with a lamp that meets the original lamp specification, failure to do so may damage the unit and will void your manufactures warranty.

- Be sure to follow all the lamp handling procedures included with your new lamp. Never handle the new lamp with your bare hands as the oils from your skin may damage the lamp.

Installation Procedure:
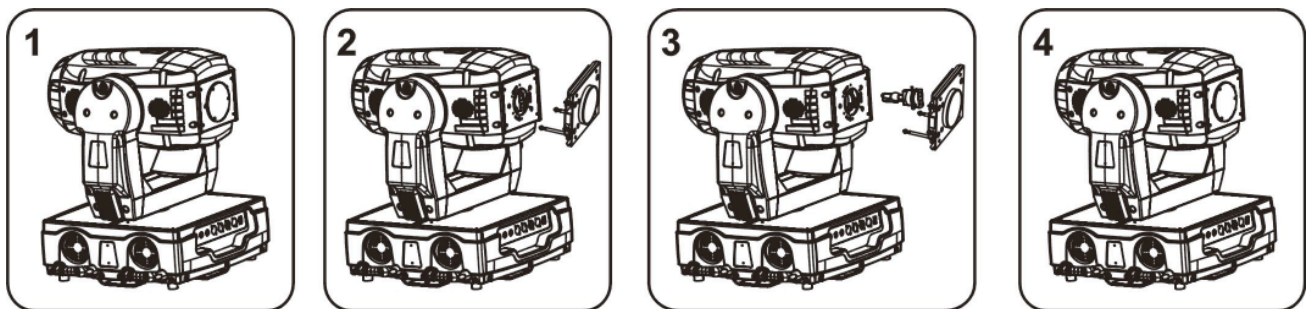
1. Set the fixture on a flat surface and remove the four screws labeled "A" "B," "C," and "D" found on the back plate of the head assembly to access the lamp.
2. Gently remove the old lamp by grasping the ceramic base and turning it counter-clockwise until it is loose.
3. Insert the new lamp securely, locking the lamp by turning it clockwise until it locks in

place. Before reassembling the unit, be sure the new lamp is securely seated in the lamp socket. Always be sure to only use specified lamp types! (MSR Gold 1200 FastFit).

4. Once the lamp has been inserted and secured into the socket, follow the lamp optimization instructions outlined below, then lock the lamp cover back in to place.

5. Reset the lamp run time in the system menu.

6. Always be sure to optimize the lamp after lamp replacement. Follow the instructions in the next section to properly align and optimize the lamp.
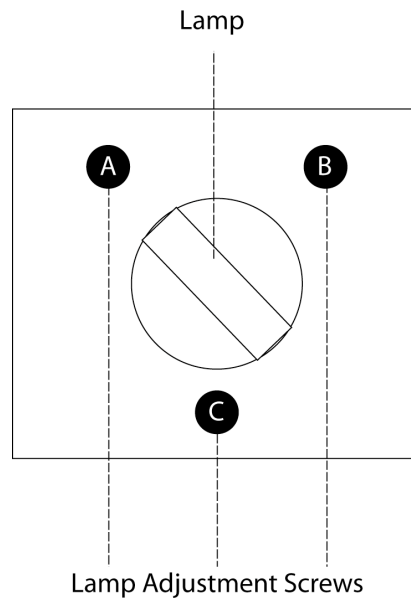
> **Caution!**
> **Do not attempt to operate this fixture without the protective covers in tacked.**

Lamp Optimization

The lamp orientation and optimization must be adjusted after every lamp change. This procedure centers the lamp in the reflector. Proper optimization will increase lamp life and ensure a bright, crisp, and even output. Improper optimization may add a yellow tint to the lamp output and reduce intensity. The minimum deviation amount is 1.0mm. Running the fixture within a lower deviation can cause damage to the lamp, reflector, and/or lens.

The **Design Spot 1400E™** lamp holder is aligned at the factory. However, due to slight imperfections in all lamps, fine adjustments will improve light performance. Please follow the procedure below for proper lamp optimization:

1. Using a DMX controller or the control panel on the unit, strike the lamp and focus the light on a flat surface (beam open, white, no gobo, no effect).

2. Center the hot-spot (the brightest part of the beam) using the 3 adjustment screws located under the lamp cover labeled A, B, and C as illustrated on the next page. Turn one screw at a time to drag the hot-spot diagonally across the projected image. If you cannot detect a hot-spot, adjust the lamp until the light is even.

3. To reduce a hot-spot, pull the lamp in by turning all three screws clockwise a 1/4-turn at a time until the light is evenly distributed.

Lamp

Lamp Adjustment Screws

Please remember that a MSR Gold 1200 FastFit lamp is not a hot-restrike lamp therefore, you should wait 15 minutes before you can attempt to strike the lamp once it has been turned off.

7. MOUNTING AND INSTALLATION

Cautions:

For added protection mount the fixtures in areas outside walking paths, seating areas, or in areas were unauthorized personnel might reach the fixture.

Before mounting the fixture to any surface, make sure that the installation area can hold a minimum point load of 10 times the device's weight.

Fixture installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.

Never stand directly below the device when mounting, removing, or servicing the fixture.

⚠	**Caution!** **Be sure a certified rigging technician has approved all installation and rigging before attempting operation.**
⚠	**Warning!** **Be sure to keep all flammable material at least 0.5m (1.5") away from this fixture at all times.**

Mounting

The Design Spot 1400E™ is fully operational in two different mounting positions, hanging upside-down from a ceiling, or set on a flat level surface (see illustration on next page). Be sure this fixture is kept at least 0.5m (1.5ft) away from any flammable materials (decoration etc.). Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

⚠	**Refer to regulations BGV C1 (formerly VBG 70) and DIN VDE0711-217 for proper installation in Europe to ensure proper installation. Only qualified personnel should attempt installation.**
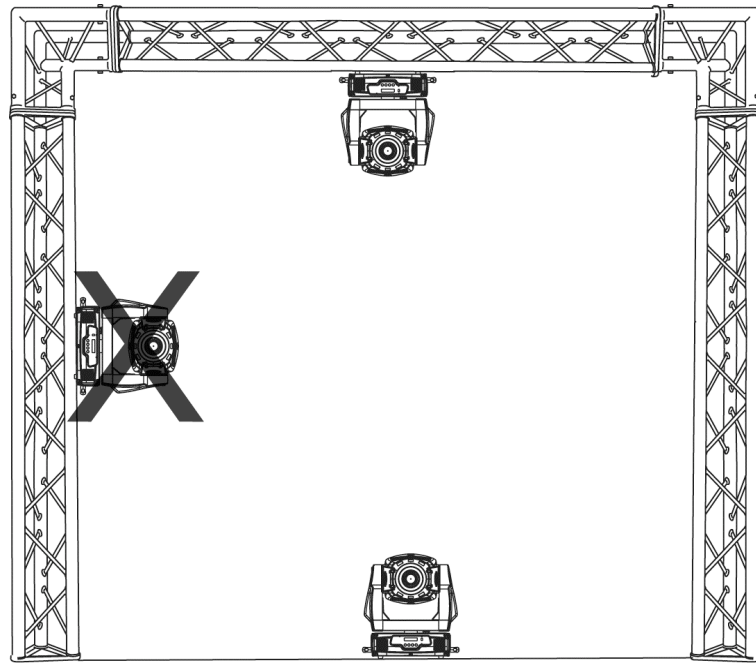
Mounting points

Overhead mounting requires extensive experience, including amongst others calculating working load limits, a fine knowledge of the 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.

⚠	**CAUTION!** **Be sure a qualified electrician performs all electrical connections.**

Be sure to complete all rigging and installation procedures before connecting the main power cord to the appropriate wall outlet.

Clamp Mounting

The Design Spot 1400E™ provides a unique mounting bracket assembly that integrates the hanging yoke as well as the safety cable rigging point in one unit (see the illustration on the next page). When mounting this fixture to truss be sure to secure an appropriately rated clamp to the hanging yoke using a M10 screw fitted through the center hole of the hanging

yoke. As an added safety measure be sure to attached at least one properly rated safety cable to the fixture using on of the safety cable rigging point integrated in the bracket assembly

1) Omega Clamp
2) Clamp
3) Safety Cable
4) 1/4 Turn quick release fastener
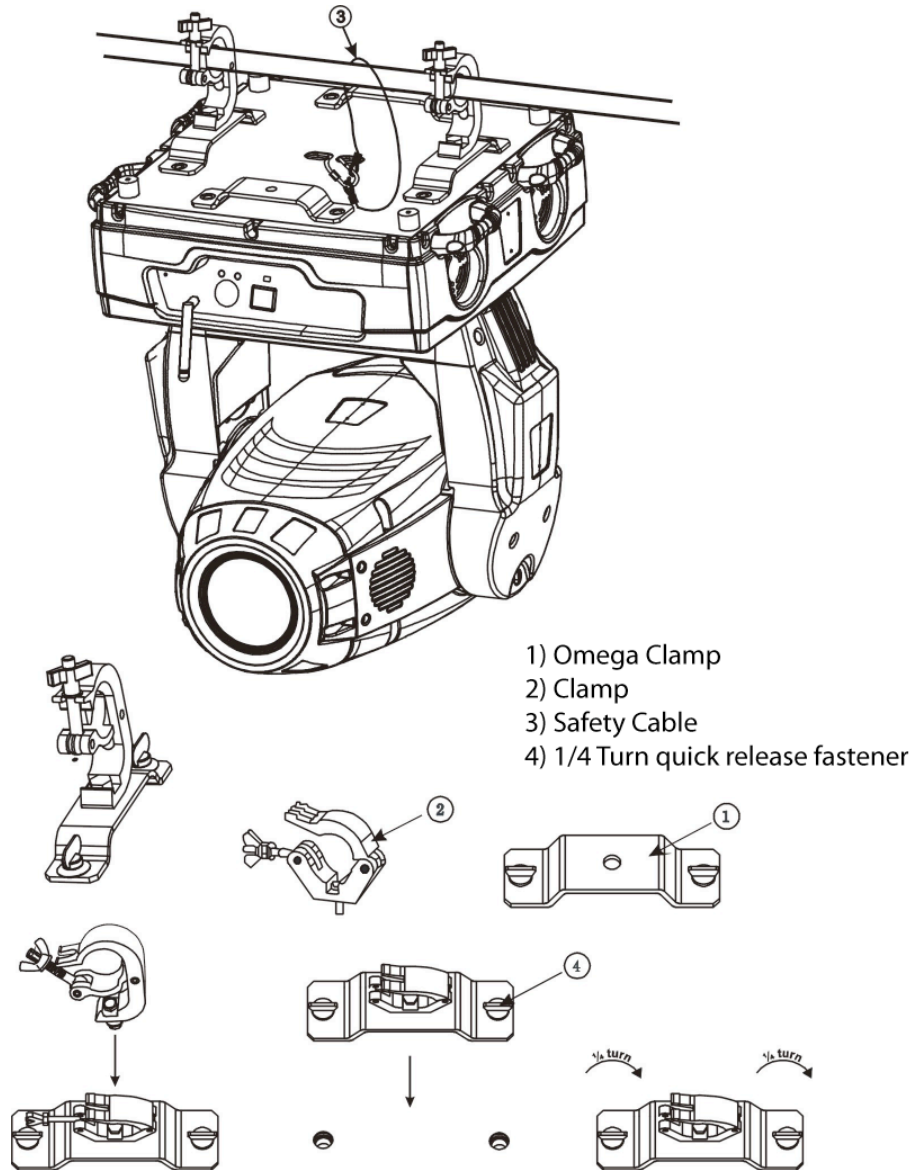
Securing the Design Spot 1400E™

Regardless of the rigging option you choose for your Design Spot 1400E™ always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable on the hanging bracket as illustrated above. Be sure to only use the designated rigging point for the safety cable and never secure a safety cable to a carrying handle.

8. UNDERSTANDING DMX

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used by most lighting and controller manufactures as a form of communication between intelligent fixtures and controllers. DMX allows all makes and models of different manufactures to be linked together and operate from a single controller. This is possible as long as all the fixtures and the controller are DMX compliant. A DMX controller sends the DMX data instructions to the fixture allowing the user to control the different aspects of an intelligent light. DMX data is sent out as serial data that travels from fixture to fixture via data "IN" and data "OUT" XLR terminals located on the fixtures (most controllers will only have output jacks).

DMX Linking: To ensure proper DMX data transmission, always use proper DMX cables and a terminator. When using several DMX fixtures try to use the shortest cable path possible. Never split a DMX line with a "Y" style connector. The order in which the fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may be placed anywhere in the DMX chain, at the beginning, at the end, or anywhere in the middle. The DMX controller knows to send data assigned to address 1 to that fixture no matter where it is located in the DMX chain. The Design Spot 1400E™ can be controlled via DMX-512 protocol. The Design Spot 1400E™ is a 25-channel DMX fixture (16-bit mode). The DMX address is set electronically using the controls on the LCD menu.

Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation): Your fixture and your DMX controller require a standard 3-pin or 5-pin XLR connector for data input and data output (the figure on the next page is of a 3-Pin XLR connector). If you are making your own cables, be sure to use two conductor shielded digital DMX cable rated at 120 ohms; this cable is designed for DMX transmission and may be purchased from your Elation dealer or at most professional lighting retailers. Your cables should be made with a male and female XLR connector on either end of the cable. Also, remember that a DMX line must be daisy chained and cannot be split, unless using an approved DMX splitter such as the Elation Opto Branch 4™ or DMX Branch/4™.

COMMON

DMX512 OUT
3-PIN XLR

DMX +

DMX -

DMX512 IN
3-PIN XLR
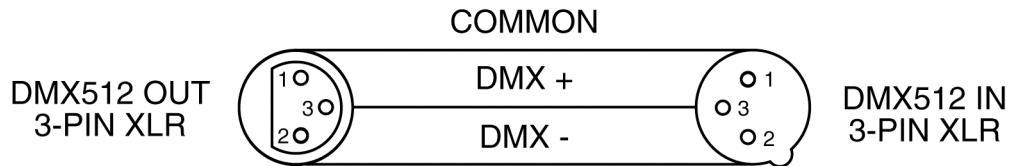
Be sure to follow the above figure when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.

DMX Output
3-Pin XLR Socket

DMX Input
3-Pin XLR Socket
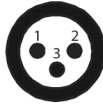
1: Ground
2: Data (-)
3: Data (+)

DMX Output
5-Pin XLR Socket

DMX Input
5-Pin XLR Socket
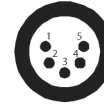
1: Ground
2: Data (-)
3: Data (+)
4: Open
5: Open

DMX-512 control connection

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head (Please refer to the diagram below.). You can chain multiple moving heads together through serial linking. The cable that should be used is two conductor, shielded DMX cable with XLR input and output connectors. Remember to daisy chain your "in" and "out" data connections, never split or "Y" your DMX connections unless you are using an approved DMX splitter such as the Elation Opto Branch 4™ or DMX Branch/4™.

CONTROLLER
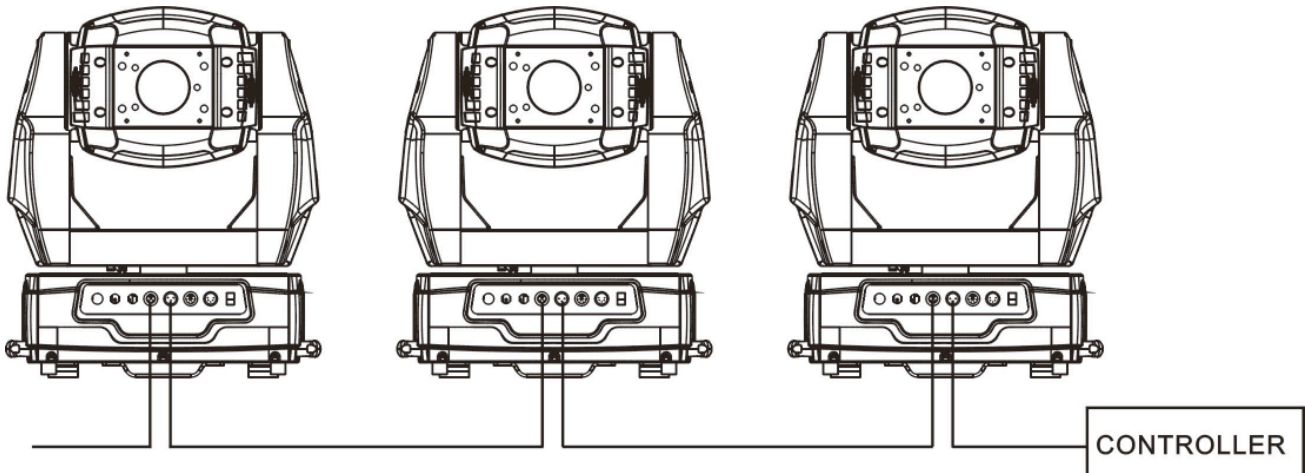
DMX-512 connection with DMX terminator

A DMX terminator should be used in all DMX lines especially in longer runs. The use of a terminator may avoid erratic behavior in your DMX line. A terminator is a 120 ohm 1/4 watt resistor that is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This fixture is inserted in the female XLR connector of the last fixture in your daisy chain to terminate the line. Using a *line terminator (Elation part: DMX T PACK) will decrease the possibilities of erratic behavior.*
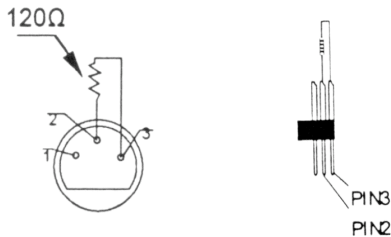
Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

5-Pin XLR DMX Connectors. Some manufactures use 5-pin XLR connectors for DATA transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The following chart details a proper cable conversion.

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Pin 4 - Do Not Use
Not Used		Pin 5 - Do Not Use

Fixture DMX addressing;

All fixtures should be given a DMX starting address when using a DMX controller, so the correct fixture responds to the correct control signal. This digital starting address is the

channel number from which the fixture starts to "listen" to the digital control information sent out from the DMX controller. The allocation of this starting DMX address is achieved by setting the correct DMX address on the digital display located on the head of the fixture.

You can set the same starting address for all fixtures or a group of fixtures, or set different address for each individual fixture. Be advised that setting all you fixtures to the same DMX address will subsequently control all fixtures in the same fashion, in other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set each fixture to a different DMX address, each unit will start to "listen" to the channel number you have set, based on the quantity of control channels (DMX channels) of each fixture. That means changing the settings of one channel will only affect the selected fixture.

In the case of the Design Spot 1400E™, which is a 25 channel fixture, you should set the starting DMX address of the first unit to 1, the second unit to 26 (25 + 1), the third unit to 51 (25 + 26), and so on.

Note: During start-up the Design Spot 1400E™ will automatically detect whether a DMX data signal is being received or not. If DMX data signal is being received, the display will show **"Addr=XXX" (XXX** representing the actual DMX address). If the fixture is not receiving a DMX signal the display will flash. If your fixture is connected to a DMX controller and the display is flashing (not receiving a DMX signal), please check the following:
-   The 3-PIN or 5-PIN XLR input plug (cable with DMX signal from controller) is not connected or is not inserted completely into the DMX input jack of the fixture.
-   The DMX controller is switched off or defective.
-   The DMX cable or connector is defective.
-   A DMX terminator has been inserted into the last fixture in your DMX chain.

9. FIXTURE MENU

On-Board System Menu: The Design Spot 1400E™ comes with an easy to navigate system menu. This next section will detail the functions of each command in the system menu.

LCD Control Panel: The control panel located on the side of the fixture allows you to access the main menu and make necessary adjustments to the **Design Spot 1400E™.** During normal operation, tapping the "**MODE/ESC**" key 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** and **Down** buttons. Once you reach a field that requires adjusting, tap the **ENTER** button to activate that field and use the **UP** and **Down** button to adjust the field. Tapping the **Enter** button once more will confirm your setting. You may exit the main menu at any time without making any adjustments by tapping the **MODE/ESC** button.

Function Mode	Set DMX Address	A001~AXXX		DMX address setting
	Value Display	PAN…		DMX value display
	Set To Slave	Slave1, Slave2, Slave3		Slave setting
	Auto Program	Master / Alone		Auto program
	Music Control	Master / Alone		Music control
Information	Time Information	Current Time	XXXX (Hours)	Power "on" running time
		Total Run Time	XXXX (Hours)	Total fixture running time
		Total Lamp Time	XXXX (Hours)	Total lamp running time
		Lamp Off Time	XXXX (Minutes)	Lamp off time
		Clear Lamp Time	ON/OFF	Clear lamp running time
		Total Fans-Clear T.	XXXX (Day)	Total fan running time
		Clear Fans-Clear T.	ON/OFF	Clear fan running time
		Fans-Clear T. Setup	OFF~250(Day)	Fans-Clear time setup
	Temperature Info	Base Temperature	XX C˚/F˚	Base Internal Temperature
		Head Temperature	XXX C˚/F˚	Head Internal Temperature
	Product Info.	Unit Model	XXXX	Unit production model
		Software Version	Ver 1.1….	Fixture's current software version

Lamp Control	Lamp On or Off		ON/OFF		Lamp on/off
	Automatic La-On		ON/OFF		Lamp "On" with Power on
	Lamp On Via DMX		ON/OFF		Control lamp on via DMX
	Lamp Off Via DMX		ON/OFF		Control lamp off via DMX
	Lamp Off No DMX		OFF, 0FF~19M		Lamp off if DMX is lost
	Lamp On at Temp.		20~79 C˚, 45C˚ /68~174F˚ 113 F˚		Lamp restart at temp.
	Lamp Off at Temp.		80~139 C˚, 130 C˚ /176~282 F˚, 266 F˚		Lamp off at temp.
Personality	Status Settings	Blackout Movement	ON/OFF		PAN/TILT Activate blackout
		Blackout Colors	ON/OFF		Colors Activate blackout
		Addr. Via DMX	ON/OFF		Add. via DMX (RDMX)
		No DMX Status	Auto/Music/Close/Hold		Auto run if no DMX
		Battery Charge	ON/OFF		Battery charge switch
		Pan Reverse	ON/OFF		Pan Reverse movement
		Tilt Reverse	ON/OFF		Tilt Reverse movement
		Fine Resolution	ON/OFF		Fine resolution switch
		Pan Degree	630/540		Pan Degree Select
		Movement Feedback	ON/OFF		Auto Pan/Tilt Correction
		Movement Speed	Speed 1~ 4		Movement Mode Select
		Mic Sensitivity	0~99%		Sensitivity of Mic.
	Fans Control	Auto Fans Speed			Fans Speed Mode Select
		High Fans Speed			
		Low Fans Speed			
	Temperature C/F	Celsius			Temperature switch between C˚/F˚
		Fahrenheit			
	Display Settings	Display Close Time	05 M, 02-59M		Display off interval
		Display Intensity	70%, 40~99%		LCD brightness
		Display Contrast	185 150 199		Display Contrast
	Initial Effect	PAN……	PAN =XXX		Initial effect position
	Wireless DMX	Activate WDMX			Activate WDMX
		De-activate WDMX			De-activate WDMX
		Rest WDMX Memory			Reset Wireless DMX memory
	Reset Default	ON/OFF			Restore factory sett.

Reset Function	Reset All			Reset all motors
	Reset Pan/Tilt			Reset Pan/Tilt
	Reset Colors			Reset color wheel
	Reset Gobos			Reset all gobo wheels
	Reset Shutter			Reset shutter and dimmer
	Reset Others			Reset all other motors
Effect Adjust	Test Channel	PAN ……		Test all channels
	Manual Control	PAN**:**	PAN =XXX**:**	Fine adjustment
	Calibrate Values	--Password-- Color wheel **:**	Password=XXX Color wheel=XXX **:**	Calibrate Menu for all adjustable motors and effects. Password "050"
Users Mode Set	User Mode Select	XXXXXX(Band) T… F… E… S… M… R… User Mode A User Mode B User Mode C		Allows the user to change the order of the DMX channels to match other fixtures.
	Edit User Mode	PAN**:**	PAN = CH01**:**	Preset User modes
Edit Program	Select Programs	Auto Pro Part 1 Auto Pro Part 2 Auto Pro Part 3	Program 1 ~ 10 Program 1 Program 1 ~ 10 Program 2 Program 1 ~ 10 Program 3	Select programs to be run
	Edit Program	Program 1 **:** Program 10	Program Test Step 01=SCxxx Step 64=SCxxx	("STEP XX")	Testing program Program in loop Save and exit
	Edit Scenes	Edit Scene 001 ~ Edit Scene 250	Pan,Tilt,…… --Secne Time-- Input via external source	Pan=xxx… TIME=XX.XS	Save and automatically return Manual scenes edit
	Rec. Controller	XX~XX			Activate intergraded DMX recorder

10 MENU FUNCTIONS:

10.1 Function Mode

10.1.1. DMX address setting

This function is used to set or adjust the fixture's starting DMX address. Every device controlled by DMX has to have a unique starting address. The addressing feature is what allows DMX to function properly. The DMX address of a fixture is what allows it to communicate with a controller properly. The DMX addressing also allows the fixture to ignore any DMX information coming from the controller that is not meant specifically for the fixture. Because each fixture is connected in a daisy-chain fashion it is imperative to assign a proper and unique starting DMX address to each and every fixture. The DMX address is non-destructive and will remain in the fixture's memory even when the power to the unit is switched off. Memory is backed-up and retain by an internal power source that should last about five years. For proper DMX addressing see Section 10/Page 32 of this user manual.

10.1.2. Display the DMX 512 value of each channel

With this function you can display the DMX 512 value of each channel. The display will automatically readout the changing DMX values as they are received.

10.1.3. Slave setting

With this function, you can define the device as slave for operation in Master/Slave mode.

10.1.4. Auto Program

This function allows the internal programs to run. The desired program is selected in the **"Select program"** section of the control menu. You can set the number of steps under **"Edit program"**. You can edit the individual scenes under **"Edit scenes"**. With this function, you can run the individual scenes either automatically, i.e. with the adjusted Step-Time.

10.1.5. Music control

With this function, you can run the internal program via sound.

10.2 Information:

10.2.1. Time information

Current time

This function displays the running time of the fixture from the last power on. The display shows "XXXX", where "XXXX" represents the number of hours the fixture has been running. This counter is automatically reset after every power-on.

Total Run Time

This function tracks the total running time of the fixture from the very first start-up. Where "XXXX "represents the total number of running hours. This time is none destructive and will remain in the fixtures memory indefinitely.

Total Lamp Time

This function tracks the total number of lamp running hours. Where "XXXX" represents the number of hours the lamp has been running. This counter should be reset after every lamp change.

Lamp off time

This function displays the running time of the lamp from the last power on. The display shows "XXXX", where "XXXX" represents the number of minutes the lamp has been running since it was last struck. This counter is automatically reset after every power-on.

Clear lamp time

This function resets the lamp "ON" time to zero. Please reset the lamp "ON" time at every lamp replacement. This procedure tracks the lamp running time so the lamp can be replaced at the end of it's recommended duty cycle.

• Select **"Clear lamp time"** in the system menu.

• The LCD will display "ON" or "OFF." Were "ON" will reset the lamp time.

• Press enter to confirm.

• Press the Mode/Esc-button to return to the main menu.

Total Fans-Clear T. (Fan operating days since last cleaning)

With this function you can display the operating days since the fan/anti-dust filter was cleaned last. The display shows "XXXX", "X" stands for the number of days.

Clear Fans-Clear T. (Clear fan operating days)

With this function you can clear the operating days of the fan. Please effect this function after every cleaning procedure of the fan/anti-dust filter.

• Select "Clear fans clear t." by turning the encoder.

• Turn the encoder, the display indicates "ON" or "OFF".

• Press the Enter button to confirm.

• Press the Mode/Esc button in order to return to the main menu.

Fans-Clear T. Setup (Select fan maintenance interval)

With this function you can select the desired maintenance interval of the fan/anti-dust filter. You can select either OFF or 1-250 days. We recommend a cleaning procedure every 90 days.

• Select "Fans clear t. setup" by turning the encoder.

• Press the Enter button, the display indicates "OFF".

• Turn the encoder, to adjust the desired number of days or "OFF".

• Press the Enter button to confirm.

• Press the Mode/Esc button in order to return to the main menu.

10.2.2. Temp. Info.

Base Temp – This function will display the base temperature of the fixture.

Head Temp – This function will display the head temperature of the fixture.

10.2.3. Product Info.

Unit Model – This function will display the fixture model number.

Software version - This function will display the current operating software version of the fixture.

- Select **"Software Version"** in the system menu.
- Press enter to confirm.
- The LCD will read "V-X.X", "X.X" represents the version number, e.g. "V-1.0", "V-2.6".
- Use the UP and DOWN buttons to toggle through the software version of different IC's.
- Press the Mode/Esc-button to return to the main menu.

10.3 Lamp Control:

10.3.1. Lamp on/off

With this function you can switch the lamp on or off via the Control Board.

- Select **"Lamp on/off"** by turning the LCD controls.
- Press the LCD controls, the display shows **"ON"** or **"OFF"**.
- Turn the LCD controls to select **"ON"** if you wish to strike the lamp or **"OFF"** in order to switch it off.
- Press "**ENTER**" to confirm.
- Press the Mode/Esc-button in order to return to the main menu.

10.3.2. Automatic La-On

With this function you can select if the lamp will be switched on when switching the power on. Select **"ON"** by turning the LCD controls if you wish to enable this function or **"OFF"** if you don't.

10.3.3. Lamp on via DMX

With this function you can select if you can switch the lamp on via an external controller. Select **"ON"** by turning the LCD controls if you wish to enable this function or **"OFF"** if you don't.

10.3.4. Lamp off via DMX

With this function you can select if you can switch the lamp off via an external controller. Select **"ON"** by turning the LCD controls if you wish to enable this function or **"OFF"** if

you don't.

10.3.5. Lamp Off if no DMX

With this function you can select to switch off the lamp off automatically if there is no DMX signal). Select **"ON"** by turning the LCD controls if you wish to enable this function or **"OFF"** if you don't.

10.3.6. Lamp on at temp.

With this function you can set the inside temperature from which the projector will strike the lamp after an automatic lamp shut off.

10.3.7. Lamp off at temp.

With this function you can set the inside temperature at which the projector will automatically switch the lamp off. Turn the LCD controls to select the maximum inside temperature between 80° C and 139° C. Inside temperatures below 90° C are not critical. 90° C and more should lead to the lamp being switched off. Please note that the outside temperature should not exceed 45° C.

10.4 Personality:

10.4.1. Status setting

Blackout movement
With this function, you can switch the DMX-function Blackout with Pan/Tilt-movement on   or off.

Blackout colors/gobos
With this function, you can switch the DMX-function Blackout at colors/gobos-change on or off.

Address via DMX - This function allows the DMX address to remotely be adjusted from a DMX console. This setting requires special settings for both the controller and the fixture. RDMX is on by default. For operational instructions please see Section 10/Page 32 of this manual "Remote DMX addressing."

No DMX Status – This function dictates how the fixture will function if it looses DMX signal during normal operation. The default function is set to hold, in which the fixture will lock into the last DMX signal it received and remain in that position until it is turned off or begins receiving a new DMX signal.   If the fixture is turned on without any DMX signal, the fixture will automatically go in to sound-active mode. Available settings are: "Close" – Shutter flags will close. "Hold" – Fixture will remain at it's last settings. "Auto Program" – Fixture will go into stand-alone mode,   running the built-in program. "Music Control" – The fixture will go into sound-active mode.

Battery charger

With this function, the rechargeable battery in the Control Board can be charged. Please note that continued recharging shortens the battery life substantially. This is why we recommend charging the battery only when needed. Please set this option to ON for charging the battery.

Pan Reverse - This function allows you to invert all pan movements. Use the Up and Down buttons to turn this function On and Off. Press the Enter button to accept the change or the Mode button to cancel and return to the main menu.

Tilt Reverse - This function allows you to invert all tilt movements. Use the Up and Down buttons to turn this function On and Off. Press the Enter button to accept the change or the Mode button to cancel and return to the main menu.

Fine resolution – This function changes the DMX channel operation from 8bit to 16bit.

Pan Degree – This function changes the maximum Pan resolution from either 540˚ or 630˚. The default function is 540˚.

Feedback – This function turns the feedback correction on or off. This function is set to on as default.

Movement Speed – This function changes the order of the DMX channels to more closely match similar fixtures from different vendors, thus allowing the user easier functionality when programming. There are four different mode variations.

Mic Sensitivity – This function make the internal microphone more or less sensitive to sound. This function only works in conjunction with the sound active modes. The default setting is 70% and setting range from 0 % to 99 %.

10.4.2. Service Settings – These adjustments and settings should only be performed by a technician familiar with the functionality this fixture. Incorrect setting of these functions may result reduced performance or damage to the fixture.

Service Password: The correct password must be entered before attempting wheel calibration, changing fan voltage, or changing the gobo speed.

Fan Voltage: This function will change the fan voltage from either "Low" or "High." Low will send normal voltage to the fan, for normal operation. High will send slightly higher voltage to fans that allows the fans to operate at higher than normal speeds. This setting should only be used in extreme cases of higher than normal temperatures. Using the fans in "HIGH" mode will decrease fan life over time. Low is the default setting.

10.4.3. Fans Control - This function is used to change the functionality of the internal cooling fans. The available selections are: 1) "AUTO" – The fans will automatically switch between low and high speeds depending on the internal operating temperature. 2) "HIGH" – The fans will run in high-speed mode regardless of operating temperature. 3) "LOW" – The fans will remain in low speeds regardless of internal operating temperature.

10.4.4. Temperature C/F – This function changes the temperature unit readout from either the temperature Celsius or Fahrenheit.

10.4.5. Display Settings - With this function, you can adjust and change the functionality of the color menu display.

Display close time

With this function you can shut off the LCD display after 2 to 59 minutes. Turn the encoder in order to select the desired shut off time.

Display intensity

With this function, you can adjust the display-intensity from 40 % to 99 %. Turn the encoder in order to select the desired intensity.

Display contrast

With this function, you can adjust the display contrast setting from 150 to 199. The default is 185. Turn the encoder wheel adjust and select the desired intensity.

10.4.6 Initial effect

This function allows the user to store a customized home (reset) position.

10.4.7 Wireless DMX

This section will control the functionality of the built-in wireless DMX receiver. See page XX for more information on operating this fixture via Wireless DMX.

10.4.8. Restore Default - With this function you can restore the factory settings of the device. All settings will be set back to the default values (shaded). Any edited scenes will be lost.

10.5 Reset Functions:

10.5.1 Reset All: This function will reset all internal motors to the home position.

10.5.2 Reset Pan and Tilt: This function will only reset the pan and tilt motors to the home position.

10.5.3 Reset Colors: This function will only reset the color wheel and the CMY filter motors to the home position.

10.5.4 Reset Gobos: This function will only reset the gobo wheels.

10.5.5 Reset Shutter: This function will only reset the blackout shutter to the home position.

10.5.6 Reset Others: This function will reset all other motors that are not associated with the previous reset functions to the home position.

10.6 EFFECT ADJUST:

10.6.1 Test Channel – This menu function allows the user to select each individual fixture channel and test it's function independently from the control board.

10.6.2 Manual control – This function readies the fixture for lamp optimization in a simple single step procedure. This function will center the pan and tilt motors while at the same time open the shutter and bring the dimmer to 100%. The pan and tilt function will still operate if the fixture needs to be positioned to a flat clear surface.

10.6.3 Calibrate values – This function should only be performed by a qualified technician. This function allows a user to make small adjustments to the effect wheels (color, gobo, shutter, etc) 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.

10.7 USER MODE:

10.7.1 User mode – This function allows the user to 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.

User mode

With this function, you can create user defined channel orders.

Preset User mode

This function allows the user to make the actual changes in the user-defined modes that are accessed through the previous function.

10.8 EDIT PROGRAM:

10.8.1 Select program – This function allows the user to select one of ten of the user defined built-in programs. This program is then accessed in "Function Mode" under "Program Run."

10.8.2 Edit program – This function allows the user to edit the built-in programs.

10.8.3 Edit Scenes – This function allows the user to edit or define the actual scenes that are stored in the user defined built-in programs that are accessed in the previous step.

10.8.4 Auto Scenes rec - The Design Spot 1400E features an integrated DMX recorder by pre-programmed scenes can be transmitted to the fixture via any standard DMX controller. This function allows those scenes to be stored in to the fixture's built-in memory and then subsequently used to create user-defined programs. See working with built-in programs Section 14 / Page 41.

11. DMX ADDRESSING

Setting the DMX address - After the fixture is turned "ON" it will immediately complete a reset process that test all the fixture's functions. When the reset process concludes the LCD will display the fixture's current DMX address. If the fixture is not receiving a DMX signal, the display will flash continuously. To set or adjust a DMX address, please follow the procedure below:

1. Toggle through the menu by pressing the Up and Down buttons until the display reads "Set DMX Address." Tap the enter button to make changes to the address.

2. While the current three-digit address is flashing use the "UP" and "DOWN" buttons to select a new address. Once the new address has been selected, lock the new address into the fixture's memory by pressing the "ENTER" button.

The DMX address is non-volatile and will remain in the fixture's memory even when the power to the unit is switched off. Memory is backed-up and retain by an internal power source that should last about five years

Remote DMX addressing (RDMX) / Address Via DMX- This function allows the DMX address to be changed remotely from a DMX console. This setting requires special settings for both the controller and the fixture. RDMX is on by default. Follow the procedure listed below to access the RDMX functions:

Fixture Settings*:*

1. Access the main menu and use the UP or DOWN to get to the "Personality" menu, then press ENTER.
2. Once in the "Personalities" menu, tap the UP or Down to get to the "Status Settings " menu, press ENTER.
3. Once in the "Status Settings" tap the UP or Down to get to the "Address via DMX" function and press ENTER.
4. "Address via DMX" is the function that turn the RDMX function on and off.
5. Press the UP button to display "ON" to activate this function, or "OFF" to deactivate this function.
6. Press ENTER to confirm.

7. Press MODE/ESC to return to the main menu.

Controller Settings*:*

1. Set the DMX value of channel 1 to a value of 7.

2. Set the DMX value of channel 2 to a value of 7 or 8. When channel 2 is set to "7" you can adjust the starting address between 1 and 255. When set to "8" you can adjust the starting address between 256 and 511.

3. Use channel 3 to set your desired DMX starting address. ***For example:*** If you want to set the starting address to 57, set channel 1 to a value of "7," set channel 2 to a value of "7" and use channel 3 to set your address to 57 by selecting a channel value of 57. Example 2: If you want to set the starting address to 420, set channel 1 to a value of "7," channel 2 to "8" and channel 3 to "164" (256+164=420).

4. ***Wait for approximately 20 seconds for the unit to complete the address reset function.***

12. OPERATION

Operating Modes: The Design Spot 1400E™ can operate in several different modes. This next section will detail the differences in the operating modes.

• *Auto Program Mode (Master) -* The fixture will chase through the built-in programs, sending a DMX control signal to all other fixtures connect via DMX cables instruction for a synchronized light show.

• *Auto Program Mode (Stand-alone) -* The fixture will chase through the built-in program. This feature is great for store front with custom logos, where as the logos need to be displayed but the use of a controller is unwanted.

• *Music Control Mode (Stand-alone) -* The fixture will react to sound, chasing through the built-in programs. Great for small clubs or DJs that do not want to bother with programming.

• *Music Control Mode (Master/Slave) -* You can daisy chain up to 16 fixtures together to get a synchronized light show without the need of an external controller. The fixtures will react to sound, chasing to a synchronized light show.

• *Set To Slave –* This function will set the fixture to slave mode for use in either the auto program or music control program modes.

• *DMX control mode -* This function will allow you to control each individual fixtures traits with a standard DMX-512 controller such as the Elation® Show Designer 2 or Show Designer 3.

12.1   Stand-Alone Operation (Auto Program or Music Control): This mode allows a single fixture to run to the built-in programs with or without sound. Only use this mode when running a single fixture, or when running several fixtures as individuals.

- Mount your fixture in a secure and stable manner.
- For functionality without sound control: Access the "Function" menu and select the "Auto Program" function, this will give you access to the "Auto Program" submenu. See page 22 for the menu breakdown. Once in the "Auto Program" submenu select "Alone"

- For functionality that chases to sound: Access the "Function" menu and select the "Music Control" function, this will give you access to the "Music Control" submenu. See page 21 for the menu breakdown. Once in the "Music Control" submenu select "Alone"

12.2 Master-Slave Operation (Auto Program or Music Control): This function allows up to 16 fixtures to be linked together to provide a synchronized light show without the use of a controller. Only use this when linking several Design Spot 1400E together for use without a controller. Any fixture can act as a "Master or a "Slave."

- Using XLR DMX cables, daisy chain your fixtures together via the XLR connectors. Remember the Male XLR connector is the input and the Female XLR connector is the output. The first fixture in the chain (master) will use the female XLR connector only - The last fixture in the chain will use the male XLR connector only. For longer cable runs we suggest a terminator at the last fixture.
- For the unit functioning as the "Master" unit follow the same procedures listed in the previous Stand-Alone section.
- For the "Slave" units, access the "Set To Slave" settings in the "Function Mode" menu and assign each slave fixture a designation (Slave 1, Slave 2, Slave 3…etc).

12.3 Universal DMX Control: This function allows you to use a universal DMX-512 controller such as the Elation® Show Designer 2™ or Elation® Show Designer 3™ to control head movement, the color wheel, the shutter (strobe), and all other DMX traits. A DMX controller allows you to create unique programs tailored to your individual needs. The Design Spot 1400E™ uses 25 DMX channels. See page 41 for detailed description of the DMX traits. To control your fixture in DMX mode, follow the set-up procedures on pages 17-19 as well as the set-up specifications that are included with your DMX controller. Use the controller's faders to control the various DMX fixture traits. This will allow you to create your own programs.

- Follow the instruction on page 32 to set the DMX address.
- Be sure to use a terminator on the last fixture, especially for longer cable runs (more than a 100 feet).

- For help operating in DMX mode consult the manual that was included with your DMX controller.

13. Using the Built-In Wireless DMX System

The Design Spot 1400E comes equipped with an Elation Wireless DMX Receiver built-in. This receiver is fully compatible with your existing Elation Wireless DMX System.

13.1 Working with the Wireless DMX (WDMX) System:

- To turn the system "On" or "Off," access the main menu and toggle to Personality - Wireless DMX. The next menu selection will allow the user to Activate the system, Deactivate the system, or Reset the system. Activate turns the system on, Deactivate turn the system off, and Reset clears the link between the fixture and a transmitter.

- **PLEASE NOTE:** When the WDMX system is activate the link between the built-in DMX "IN" XLR jacks is electronically turned off, but the "OUTPUT" DMX XLR jacks will function normally.

- If a fixture is powered on when the built-in WDMX system is activated, the fixture will automatically scan for a wireless DMX signal from an Elation wireless transmitter. If no wireless signal is received the fixture will electronically switch to wired mode.

⚠️	**WARNING!** **Never connect a fixture to a controller via a DMX cable when the WDMX system is in use. This could cause serious damage to the controller.**

13.2 Setting up the WDMX system:

1) Follow the instructions that come with your wireless transmitter and connect the transmitter to your DMX controller.

2) To sync your fixture with your wireless transmitter follow the steps below:

   a) Initially, the WDMX indicator on the fixture should be solid red

   b) Press and hold the configuration button on your WDMX transmitter for about 3 seconds. The red/green LED indicators on the transmitter and the fixture should then begin to flash rapidly for about 5~ 10 seconds while the two system pair

   c) Once the fixture is paired with the transmitter (T1), the WDMX status indicators

on the both the fixture and the transmitter will stop flashing and glow solid green. If the paring is unsuccessful repeat the process until the paring is secured.

d) The fixture will store the pairing information inside a nondestructive memory bank once a link is created between the fixture and a transmitter. The fixture will remember the paired transmitter even if the fixture is turned off for extended periods of time.

13.3 Clearing Transmitter Link:

1) Access the fixture's main menu and toggle to Personality - Wireless DMX – Reset. Select "Reset" to clear any existing link between the fixture and a transmitter. The WDMX indictor on the fixture will turn solid red when the link is severed.

2) You may also clear the link from the transmitter. First, be sure the fixture(s) is powered on, then hold down the configuration button on the transmitter for as least 5 seconds. This will automatically clear the link between the transmitter and any fixture that is powered on. All WDMX indictors will glow solid red if the procedure was successful.

13.4 WDMX Indicators:

1) Rapid flashing Red/Green: Syncing in to a transmitter.

2) Slow flashing Red/Green: Paired with a transmitter. Transmitter is not receiving a DMX signal from a controller.

3) Solid Green: Paired with a transmitter and receiving DMX data.

4) Solid Red: Not paired with a transmitter (free)

14. WORKING WITH BUILT-IN PROGRAMS

The fixture comes equipped with a built-in DMX recorder that allows custom programs to be installed and recalled directly from the fixture's control board. Programs can be created and stored using the fixture's control board or by using an external DMX controller. The following instructions will detail the procedures for using the on-board system menu as well as using a DMX compliant controller.

Memory Statistics:

Total Number of Programs: 8

Maximum Number of Steps (Scenes) per a Program: 48

Total Number of Scenes (Steps): 250

Step 1 – Building Scenes.

The control will store a maximum of 250 scenes. These scenes are then used to create the programs. A program can store one or a maximum of 64 scenes. Keep in mind that a scene can only be access when it is stored in a "Program." If you wish to build a static scene (a scene consisting of no movement) for a logo or gobo projection, the scene must be stored inside a program. To build scenes follow the instructions below:

- Access the main menu and toggle to "Edit Programs" which is menu function 8.
- Then tap the "ENTER" button and toggle to "Edit Scenes," menu function 8-3.
- When you get to the "Edit Scenes" function tap the "ENTER" button. The screen will then change to Edit Scene 001, this will be menu function 8-3-1. You can then press the "ENTER" button to begin to edit scene 1 or use the "UP" and "DOWN" buttons to toggle to access scenes 2-250.
- Once in the scene edit screen you have access to the functions listed below. Tapping the "ENTER" button will instantly allow you to change the values of the selected function in real time. The values can be adjusted from 0~250. Once you achieved your desired value tap the "ENTER" button once again to automatically lock the value into the scenes memory. You can repeat the procedure for all functions listed below:
    - "Auto Program" – Allows access to all 24 of the channel's DMX traits.
    - "PAN" – pan movement.

- "PAN-Fine" – precision pan movement.

- "TILT" – tilt movement.

- "TILT-Fine" – precision tilt movement

- "Move Speed" – adjust pan and tilt motor speed

- "Gobo Wheel 1" – select gobos from gobo wheel 1

- "Gobo Rot. 1" – adjust gobo 1 indexing or rotation

- "Gobo Wheel 2" – select a gobo from gobo wheel 20

- "Prism" – select a prism, prism macro, or frost

- "Prism Rot." – adjust the prism indexing or rotation

- "Color Speed" – adjust the CMY mixing speed

- "Color Macro" – select a built-in color mixing macro

- "Cyan" – adjust the cyan flag value

- "Magenta" – adjust the magenta flag value

- "Yellow" – adjust the yellow flag value

- "Color Wheel" – select a color from the color wheel

- "Iris" – adjust the iris value

- "Focus" – adjust the focus value

- "Strobe" – adjust the strobe

- "Dimmer" – adjust the dimmer intensity

- "Scene Time" – set the hold time for the scene

- "Input By Out" – this function will store a scene from an external DMX console. See the next section for scene editing via an external DMX controller.

Step 1B – Building Scenes from an External DMX Controller.

The fixture includes a simple built-in DMX recorder. This recorded allow you to build a scene using your own DMX console and then send that scene to the fixture to be stored inside one of the fixture scene storage banks. Many people may find this procedure easier and quicker than using the on board menu functions as in "Step 1." To store a scene from an external DMX controller follow the procedures below:

- Using your DMX controller build and store scenes as you normally would.

- Once you have built all your required scenes, enter the fixtures main menu

and toggle to "Edit Programs" – "Edit Scenes"

- Using the UP and DOWN buttons to select a scene bank to store your scene. You may choose a bank from 1 ~ 250.
- Once you reach your desired bank press the ENTER button and use the UP and DOWN button to reach "Input by Outside"
- Next, select a scene on your DMX console and press the ENTER button on the fixture. The scene should then be stored to the fixtures internal memory EPROM.
- Follow the next section to build a program with your scenes.

Step 2 – Editing Programs.

The control will store a maximum of 10 programs. A program can store one or a maximum of 64 scenes. Keep in mind that a scene can only be access when it is stored inside one of the 10 available programs. Follow the procedure below to build an internal program:

- Access the main menu and toggle to "Edit Programs" which is menu function 8.
- Then tap the "ENTER" button and toggle to "Program 1" menu function 8-2-1.
- When you get to the "Program 1" function tap the "ENTER" button. The screen will then change to Edit Steps 01, this will be menu function 8-2-1-1. Use the "UP" and "DOWN" buttons to toggle through the scenes created in "Step 1." Press the "ENTER" button to add a scene to the program. Tapping the "Enter" button will automatically lock the selected scene into the programs' memory. Repeat the process until all the desired scenes have been added to the program. Each program can store a maximum of 64 scenes.
- To test the program access "Program Test" in the "Program Edit" menu function.

Step 3 – Playing a Program

To initiate a program follow the procedure below:

- Access the main menu and use the "Up" and "Down" to toggle to "Function Mode" and tap the "Enter" button.
- In the next screen select "Auto Program" and tap the "Enter" button.
- There are now two selections, "Master" and "Alone." Select "Master" when running multiple fixtures in a master/slave configuration. See section 11.2 "Master/ Slave

Operation" on page 36 for proper set-up instructions. Select "Alone" when running a single fixture or when multiple fixtures in stand-alone mode. See section 11.1 "Stand-Alone Operation" on page 34 for proper set-up instructions.

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

Auto Pro Part 1	Auto Pro Part 2	Auto Pro Part 3	Auto Pro Part 1	Auto Pro Part 2	Auto Pro Part 3	Auto Pro Part 1	Auto Pro Part 2	Auto Pro Part 3
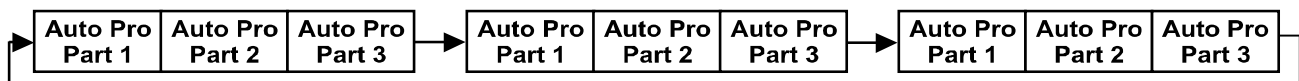
The Slave unit receives data from the Master unit according to the group which the Slave unit was assigned to. If e.g. a Slave unit is set to "Slave 1" in the menu "Set to Slave", the Master unit sends "Auto Program Part 1" to the Slave unit. If set to "Slave 2", the Slave unit receives "Auto Program Part 2".

To start a Auto Program please proceed as follows:

1. Slave-Setting
• Select "Function Mode" by turning the encoder.
• Press the Enter button to confirm.
• Select "Set to slave" by turning the encoder.
• Press the Enter button to confirm.
• Turn the encoder to select "Slave 1", "Slave 2" or "Slave 3".
• Press the Enter button to confirm.
• Press the Mode/Esc button in order to return to the main menu.

2. Automatic Program Run
• Select "Function Mode" by turning the encoder.
• Press the Enter button to confirm.
• Select "Auto Program" by turning the encoder.

• Press the Enter button to confirm.

• Turn the encoder to select "Master" or "Alone". The selection "Alone" means Stand Alone-mode and "Master" that the device is defined as master.

• Press the Enter button to confirm.

• Press the Mode/Esc button in order to return to the main menu.

3. Program selection for Auto Pro Part

• Select "Edit program" by turning the encoder.

• Press the Enter button to confirm.

• Select "Select programs" by turning the encoder.

• Press the Enter button to confirm.

• Turn the encoder to select "Auto Pro Part 1", "Auto Pro Part 2" or "Auto Pro Part 3", and thus select which Slave program is to be sent. Selection "Part 1" means, that the Slave unit runs the same program as the master units.

• Press the Enter button to confirm.

• Press the Mode/Esc button in order to return to the main menu.

4. Program selection for Edit Program

• Select "Edit program" by turning the encoder.

• Press the Enter button to confirm.

• Select "Edit program" by turning the encoder.

• Press the Enter button to confirm.

• Turn the encoder to select the desired program. With this function you can edit specific scenes into a specific program.

• Press the Enter button to confirm.

• Press the Mode/Esc button in order to return to the main menu.

5. Automatic Scene Recording

• Select "Edit program" by turning the encoder.

• Press the Enter button to confirm.

• Select "Edit scenes" by turning the encoder.

• Turn the encoder to select the desired scene numbers. You can program a maximum

number of 250 • Turn the encoder to select the desired scene numbers. You can program a maximum number of 250 scenes.

• Press the Enter button to confirm.

• Press the Mode/Esc button in order to return to the main menu.

Example:

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

Program 4 includes scenes: 8, 9, 10

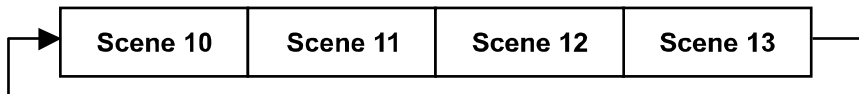Program 6 includes scenes: 12, 13, 14, 15, 16

Auto Pro Part 1 is Program 2;

Auto Pro Part 2 is Program 3;

Auto Pro Part 3 is Program 6

The 3 Slave groups run the Auto Program in certain time segments, as shown in the following picture:

Part 1:

Scene 10	Scene 11	Scene 12	Scene 13

Part 2:

Scene 8	Scene 9	Scene 10	Scene 8

Part 3:
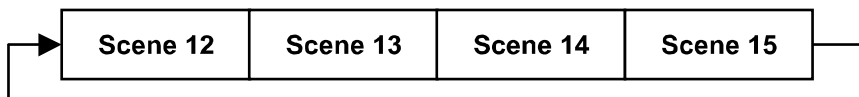
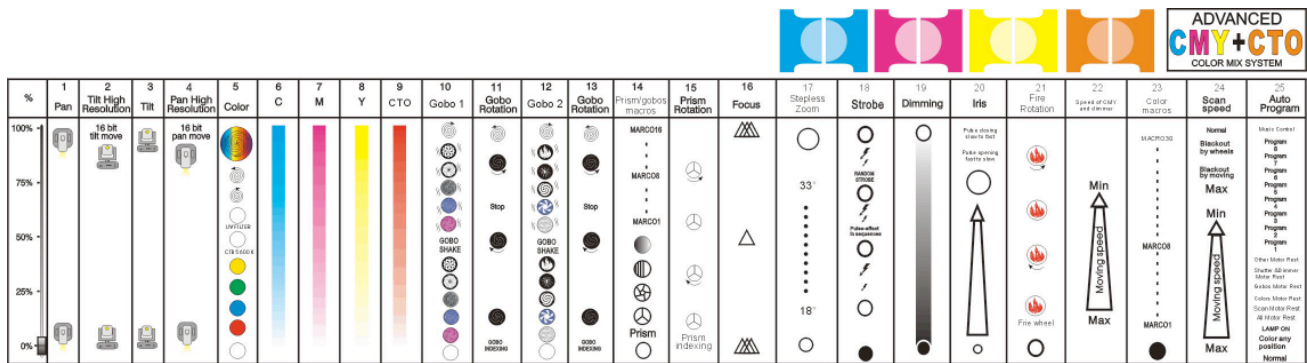| Scene 12	Scene 13	Scene 14	Scene 15
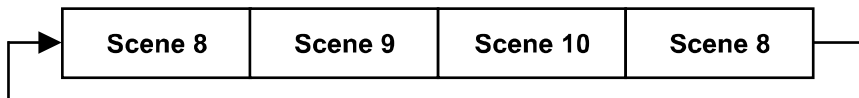
15. DMX CHANNEL TRAITS:

The chart below details the channel layout for 25 DMX channels (default).

In 8bit mode the "Pan Fine" and "Tilt Fine" channels are not used, thus converting the fixture into a 23-channel DMX fixture.

CHANNEL 1: Pan Movement (max. 630° or 540˚ User Selectable)

CHANNEL 2: 16bit Pan Movement (pan fine)

CHANNEL 3: Tilt Movement (max. 265°)

CHANNEL 4: 16bit Tilt Movement (tilt fine)

CHANNEL 5: Color Wheel

CHANNEL 6: Cyan Filter

CHANNEL 7: Magenta Filter

CHANNEL 8: Yellow Filter

CHANNEL 9: Variable CTO Filter)

CHANNEL 10: Gobo 1

CHANNEL 11: Gobo 1 Rotation

CHANNEL12: Gobo 2

CHANNEL 13: Gobo 2 Rotation

CHANNEL 14: Prism/Gobo Macros

CHANNEL 15: Prism/Prism Rotation

CHANNEL 16: Focus

CHANNEL 17: Variable Zoom

CHANNEL 18: Strobe (0-13Hz), and Shutter close/open function + random strobe

CHANNEL 19: Dimmer (Intensity) Control

CHANNEL 20: Iris

CHANNEL 21: Animation/Animation Rotation

CHANNEL 22: CMY Speed

CHANNEL 23: Color Macros

CHANNEL 24: Movement Speed (Pan/Tilt movement, blackout selection)

CHANNEL 25: Special (Auto program control + lamp on, motor reset, lamp switch off)

DMX channel function and values:

DMX Channel Values (25 DMX channels):

Channel 1 - Pan 8bit:

Channel 2 – Pan fine 16bit:

Channel 3 – Tilt 8bit:

Channel 4 – Tilt fine 16bit:

Channel 5 - Color Wheel 1:

0-17	Open / white
18-35	Color 1
36-53	Color 2
54-71	Color 3
72-89	Color 4
90-107	Color 5
108-127	Color 6
128-187	Forwards rainbow effect from fast to slow
188-195	No rotation
196-255	Backwards rainbow effect from slow to fast

Channel 6 - Cyan Color Wheel:

0-255	Cyan (0-white, 255-100% Cyan)

Channel 7 - Magenta Color Wheel:

0-255	Magenta (0-white, 255-100% magenta)

Channel 8 - Yellow Color Wheel:

0-255	Yellow (0-white, 255-100% Yellow)

Channel 9 - CTO Color Wheel:

0-255   CTO (0-white, 255-100% CTO)

Channel 10 – Rotating Gobo Wheel 1:

0-14   Open
15-29   Rotating Gobo 1 (dichroic multicolor)
30-44   Rotating Gobo 2 (glass)
45-59   Rotating Gobo 3 (dichroic multicolor)
60-74   Rotating Gobo 4 (metal)
75-89   Rotating Gobo 5 (metal)
90-109   Gobo 1 shake slow to fast
110-129   Gobo 2 shake slow to fast
130-149   Gobo 3 shake slow to fast
150-169   Gobo 4 shake slow to fast
170-189   Gobo 5 shake slow to fast
190-255   Gobo Wheel 1 Continuous, Clockwise Rotation, Slow - Fast

Channel 11 – Gobo Wheel 1 Rotation and Indexing:

0-127   Gobo indexing
128-189   Clockwise gobo rotation from fast to slow
190-193   No rotation
194-255   Counter-Clockwise gobo rotation from slow to fast

Channel 12 – Rotating Gobo Wheel 2:

0-14   Open
15-29   Rotating Gobo 1 (dichroic multicolor)
30-44   Rotating Gobo 2 (glass)
45-59   Rotating Gobo 3 (dichroic multicolor)
60-74   Rotating Gobo 4 (metal)
75-89   Rotating Gobo 5 (metal)
90-109   Gobo 1 shake slow to fast
110-129   Gobo 2 shake slow to fast
130-149   Gobo 3 shake slow to fast
150-169   Gobo 4 shake slow to fast
170-189   Gobo 5 shake slow to fast
190-255   Gobo Wheel 2 Continuous, Clockwise Rotation, Slow - Fast

Channel 13 – Gobo Wheel 2 Rotation and Indexing:

0-127   Gobo indexing
128-189   Clockwise gobo rotation from fast to slow

190-193   No rotation

194-255   Counter-Clockwise gobo rotation from slow to fast

Channel 14 – Prism/Frost/Prism Macros:

  0-25   Open

 26-51   3 facet prism

 52-77   5 facet prism

 78-103   Trapezoid prism

104-127   Frost Filter

128-135   Macro 1

136-143   Macro 2

144-151   Macro 3

152-159   Macro 4

160-167   Macro 5

168-175   Macro 6

176-183   Macro 7

184-191   Macro 8

192-199   Macro 9

200-207   Macro 10

208-215   Macro 11

216-223   Macro 12

224-231   Macro 13

232-239   Macro 14

240-247   Macro 15

248-255   Macro 16

Channel 15 – Prism Rotation/Indexing:

  0-127   Gobo indexing

128-189   Clockwise gobo rotation from fast to slow

190-193   No rotation

194-255   Counter-Clockwise gobo rotation from slow to fast

Channel 16 – Focus:

  0-255   Continuous adjustment from near to far

Channel 17 – Zoom:

  0-255   Zoom adjustment from small (15˚) to large (32˚)

Channel 18 – Shutter/Strobe:

  0-31   Shutter closed

 32-63   No function (shutter open)

64-95	Strobe effect, slow to fast
96-127	Lamp Strobe effect, slow to fast
128-159	Strobe-pulse effect in sequences
160-191	No function (shutter open)
192-223	Random strobe effect, slow to fast
224-255	No function (shutter open)

Channel 19 - Dimmer (intensity):

0-255	Intensity 0 to 100%

Channel 20 – Iris:

0-191	Maximum diameter to Minimum diameter
192-223	Pulse closing fast to slow
224-255	Pulse opening slow to fast

Channel 21 - Animation Wheel, Wheel Rotation:

0-7	Open
8-127	Clockwise rotation from fast to slow
128-135	No rotation
136-255	Counter-Clockwise rotation from slow to fast

Channel 22 - CMY & Dimmer Speed:

0-255	Speed Maximum —> Minimum

Channel 23 - Color macros - CMY and color wheel:

0-7	OFF	128-135	Macro16
8-15	Macro1	136-143	Macro17
16-23	Macro2	144-151	Macro18
24-31	Macro3	152-159	Macro19
32-39	Macro4	160-167	Macro20
40-47	Macro5	168-175	Macro21
48-55	Macro6	176-183	Macro22
56-63	Macro7	184-191	Macro23
64-71	Macro8	192-199	Macro24
72-79	Macro9	200-207	Macro25
80-87	Macro10	208-215	Macro26
88-95	Macro11	216-223	Macro27
96-103	Macro12	224-231	Macro28
104-111	Macro13	232-239	Macro29
112-119	Macro14	240-247	Macro30
120-127	Macro15	248-255	Random CMY

Channel 24 – Pan/Tilt Speed:

0-225	Max to min speed
226-235	Blackout by movement
236-245	Blackout by all wheel changing
246-255	No function

Channel 25 – Lamp on/off, Reset, Internal Programs:

0-19	Color change normal
20-39	Color change to any position
40-59	Lamp on
60-79	Lamp switch off
80-84	All motor reset
85-87	Scan motor reset
88-90	Colors motor reset
91-93	No function
94-96	Shutter & Dimmer motor reset
97-99	Other motor reset
100-119	Internal program 1 (secne1~8 of EEPROM)
120-139	Internal program 2 (secne9~16 of EEPROM)
140-159	Internal program 3 (secne17~24 of EEPROM)
160-179	Internal program 4 (secne25~32 of EEPROM)
180-199	Internal program 5 (secne33~40 of EEPROM)
200-219	Internal program 6 (secne41~48 of EEPROM)
220-239	Internal program 7 (secne49~56 of EEPROM)
240-255	Audio Control (scene of Program 1)

16. FUSE REPLACEMENT

The Design Spot 1400E has two external protective fuses. One fuse protects the internal electronics and the other protects the lamp circuitry.

Fuse 1, Lamp Fuse: GMA 220v/10A

Fuse 2, Electronics Fuse: GMA 220v/2A

Caution: Always replace with the exact same type fuse, unless otherwise specified by an authorized Elation® service technician. Replacing with anything other than the specified part can damage your unit and will void your manufactures warranty.

Warning: If you continue to blow fuses, STOP using the fixture. Contact customer support for further instructions, you may have to return the unit for servicing. Continuing to use the unit may cause serious damage.

Fuse Replacement: Locate and remove the unit's power cord from the main power supply. Once the cord has been removed located the fuse holders located on the side panel near the power input connection. Using a flat-head screwdriver unlock the fuse holder from its' housing by turning the holder in a counter-clockwise direction. Once the fuse holder has been unlocked, pull back on the fuse holder to expose the fuse. Gently pull out the bad fuse and discard of it properly and replace it with an exact match. Reassemble in reverse order.

17. 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 "02Er," it means there is some type of error with the channel 2 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, channel 2, and channel 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 persist 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: 1) 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. 2) 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.

Pan Er

(PAN-yoke movement error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The PAN- movement is not located in the default position after the reset.

Tilt Er

(TILT-head movement error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The TILT- movement is not

located in the default position after the reset.

Rotation Gobo 1 Er

(Rotation gobo 1 error) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The Rotation gobo 1 is not located in the default position after the reset.

Gobo rotation 1 Er

(Gobo rotation 1 error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Gobo rotation 1 error is not located in the default position after the reset.

Rotation Gobo 2 Er

(Rotation gobo 2 error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Rotation gobo 2 error is not located in the default position after the reset.

Gobo rotation 2 Er

(Gobo rotation 2 error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Gobo rotation 2 is not located in the default position after the reset.

Prism Er

(Prism error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Prism is not located in the default position after the reset.

Prism rotation Er

(Prism rotation error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Prism rotation is not located in the default position after the reset.

Cyan Color Er

(Cyan Color-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its drive circuit on the main PCB). The Cyan Color wheel is not located in the default position after the reset.

Magenta Color Er

(Magenta Color-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its drive circuit on the main PCB). The Magenta Color-wheel is not located in the default position after the reset.

Yellow Color Er

(Yellow Color-wheel error) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The Yellow Color - wheel is not located in the default position after the reset.

CTO color Er

(CTO color error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The CTO color is not located in the default position after the reset.

Color wheel Er

(Color wheel error) This message will appear after the reset of the fixture if the yoke's

magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Color wheel is not located in the default position after the reset.

Iris Er

(Iris error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Iris is not located in the default position after the reset.

Focus Er

(Focus error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Focus is not located in the default position after the reset.

Stepless zoom Er

(Stepless zoom error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Stepless zoom is not located in the default position after the reset.

Strobe Er

(Strobe error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Strobe is not located in the default position after the reset.

Fire Wheel Er

(Fire wheel error) This message will appear after the reset of the fixture if the fixture's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Fire wheel is not located

in the default position after the reset.

18. CLEANING AND MAINTENANCE

The following points have to be considered during the inspection:

1. 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.

2. There must not be any deformations on the housing, color lenses, rigging hardware and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for UV radiation leakage. Damaged rigging points or unsecured rigging could cause the unit to fall and serious injure a person.

3. All mechanical parts and motors should not show any traces of serious wear and should rotate freely.

4. Electric power supply cables must not show any damage, material fatigue or sediments. Never remove the ground prong from the power cable.

Further instructions depending on installation and usage have to be adhered by a skilled installer and any safety problems should be addressed before attempting operation.

We recommend frequent cleaning of the fixture to ensure operational longevity and crisp light output. When cleaning, please use a moist, lint-free cloth. Never use alcohol or solvents.

There are no user serviceable parts inside this fixture with the exception of the lamp. Please refer all other service related issues to an authorized Elation service technician.

Should you decide to service the fixture yourself please order genuine Elation parts directly from Elation.

19. 2-YEAR LIMITED WARRANTY

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

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

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

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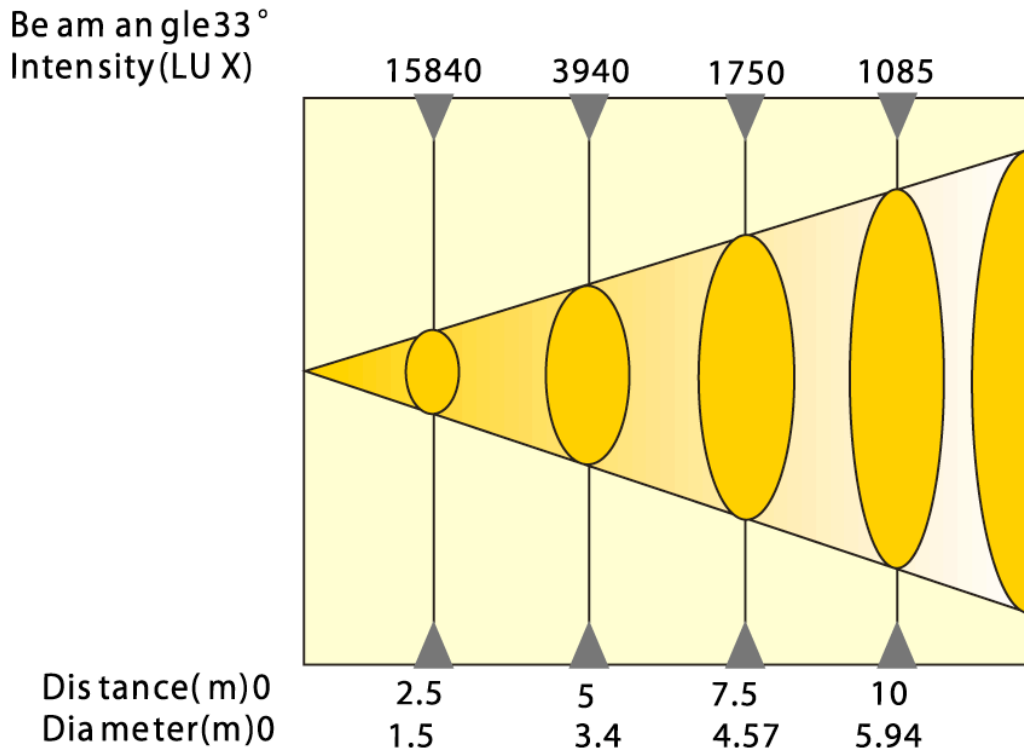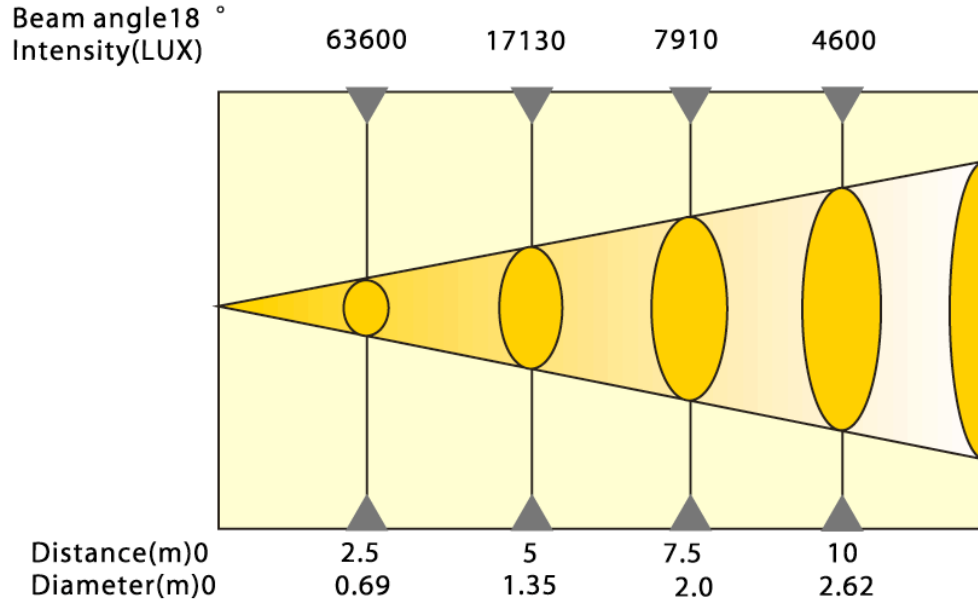
effect.

E.   Elation Professional® reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.
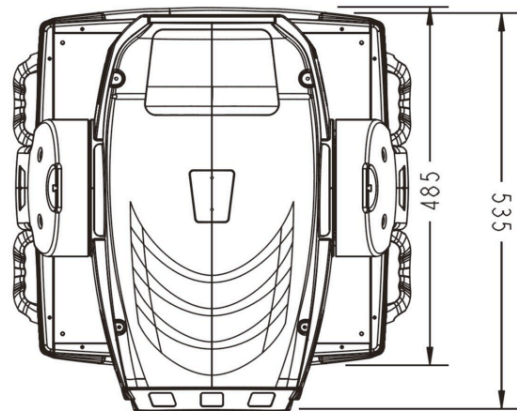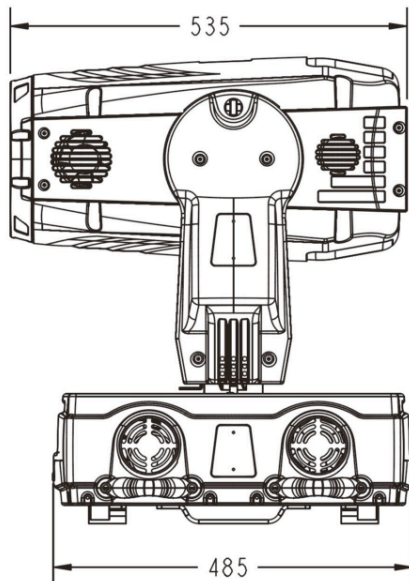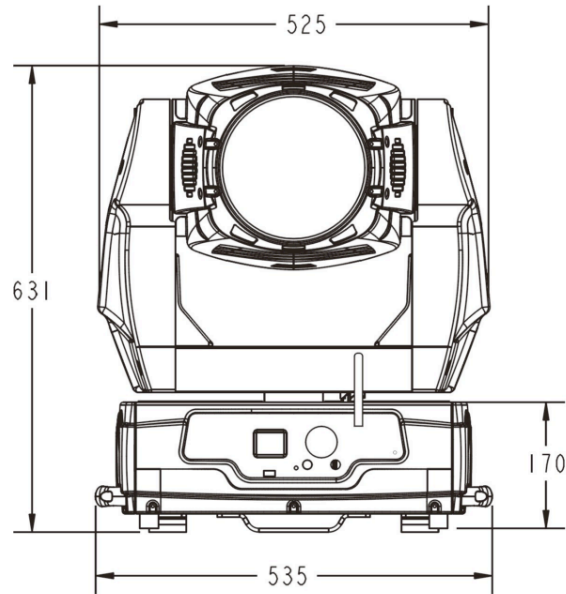
F.   No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by Elation Professional® in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Elation Professional® be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

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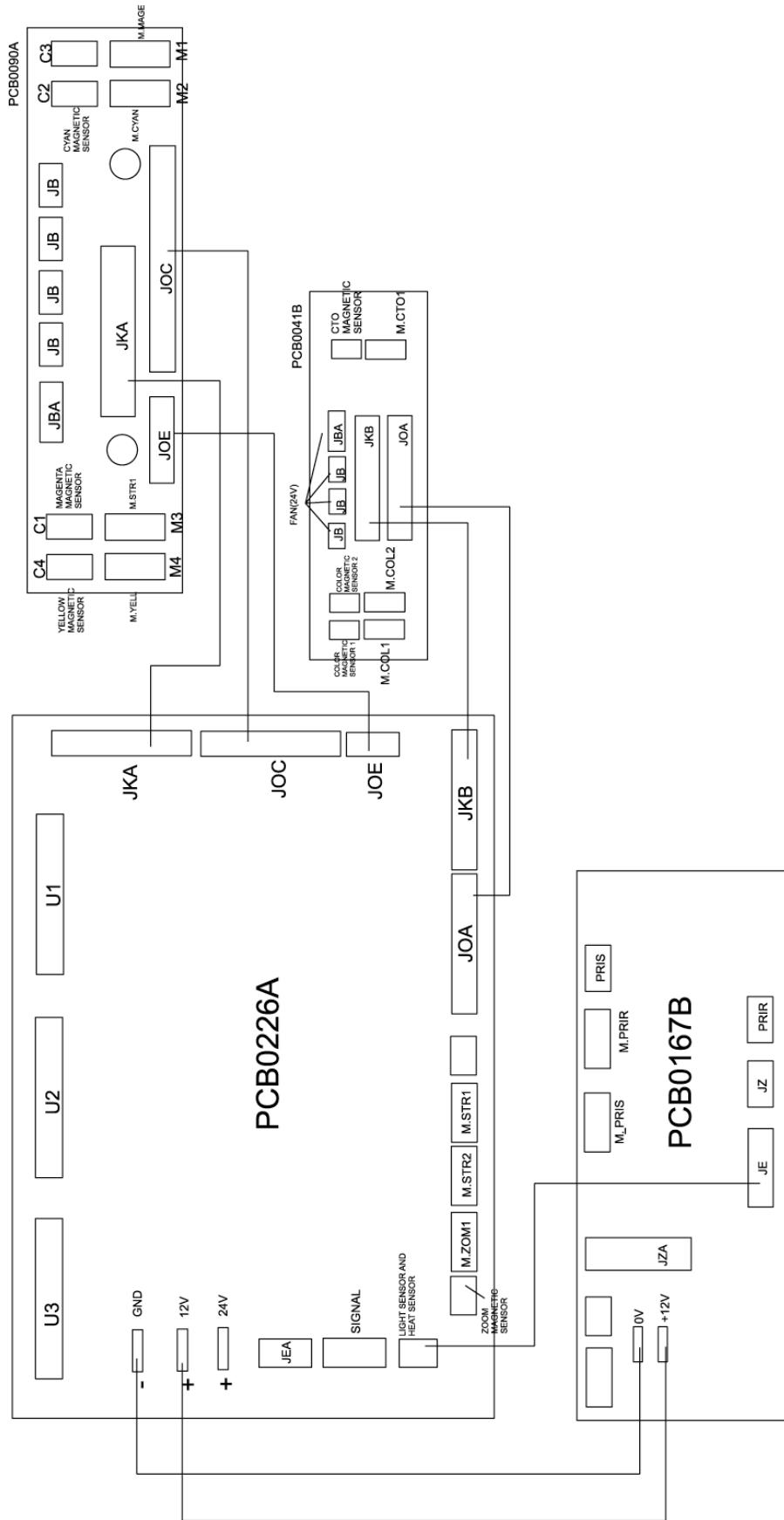
20. PHOTOMETRIC DATA:

Beam angle18 °
Intensity(LUX)

| | 63600 | 17130 | 7910 | 4600 |

Distance(m)0   2.5   5   7.5   10
Diameter(m)0   0.69   1.35   2.0   2.62

Beam angle33°
Intensity(LU X)

| | 15840 | 3940 | 1750 | 1085 |

Distance(m)0   2.5   5   7.5   10
Diameter(m)0   1.5   3.4   4.57   5.94

21. DIMENSIONAL DRAWINGS:

22. CIRCUIT SCHEMATIC

23. TECHNICAL SPECIFICATIONS

Power supply	
Power consumption	208 ~ 240V, 50/60 Hz 1800 Watt, 8.5 A, electronic ballast, (blind current compensated)
Fuse protection	220V = 10A/250V, GMA (5x20mm fine-wire fuse)

Lamp	
Type	Philips Gold MSR 1200 FastFit
Life time	750 Hrs
Color temperature	6300˚ K
Luminous flux	95,000 lm

Optical system
Parabolic dichroic glass reflector
Lenses hardened and tempered, anti-reflex coated

Color Wheel
Color-wheel 1: 4 interchangeable dichroic glass colored filters plus "open"
Color-wheel 2: 2 interchangeable dichroic glass colored filters plus UV, CTB, & "open"

CMY Color mixing unit
Cyan color filter 0 - 100%
Magenta color filter 0 - 100%
Yellow color filter 0 - 100%

Shutter / Strobe / Dimmer
Strobe effect with variable speed 1 - 10 flashes per second
Continuously mechanical dimmer 0 - 100%

Focus
Motor driven focus from near to far away

Zoom
Zoom range 11° - 45°

DMX Channels
17 (16bit – default) *or* 15 (8bit – user selectable)

Drive
Standard DMX-512, 3 pole XLR; [+] = Pin 3   [-] = Pin 2   [Ground] = Pin 1 or 5 pole XLR; n/a = Pin 5, n/a = Pin 4,   [+] = Pin 3,   [-] = Pin 2,   [Ground] = Pin 1 Starting DMX [001].

Pan / Tilt	
Pan - movement	**630° in max. 2.0 seconds, 16 bit resolution**
Tilt - movement	**265° in max. 1.5 seconds, 16 bit resolution**

Weights and Measures	
Width of the base	**485mm (535mm including handles)**
Length of the base	**485mm**
Width of Head	**535mm**

Height (head vertical)	890mm
Weight (net)	45.5Kgs
Operating Noise Levels (Base level 46.8dB)	
Mode: Auto	1m = 55.9 dB
Mode: High	1m = 56.2 dB
Mode: Auto	1m = 51.6 db (Lamp off)

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

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