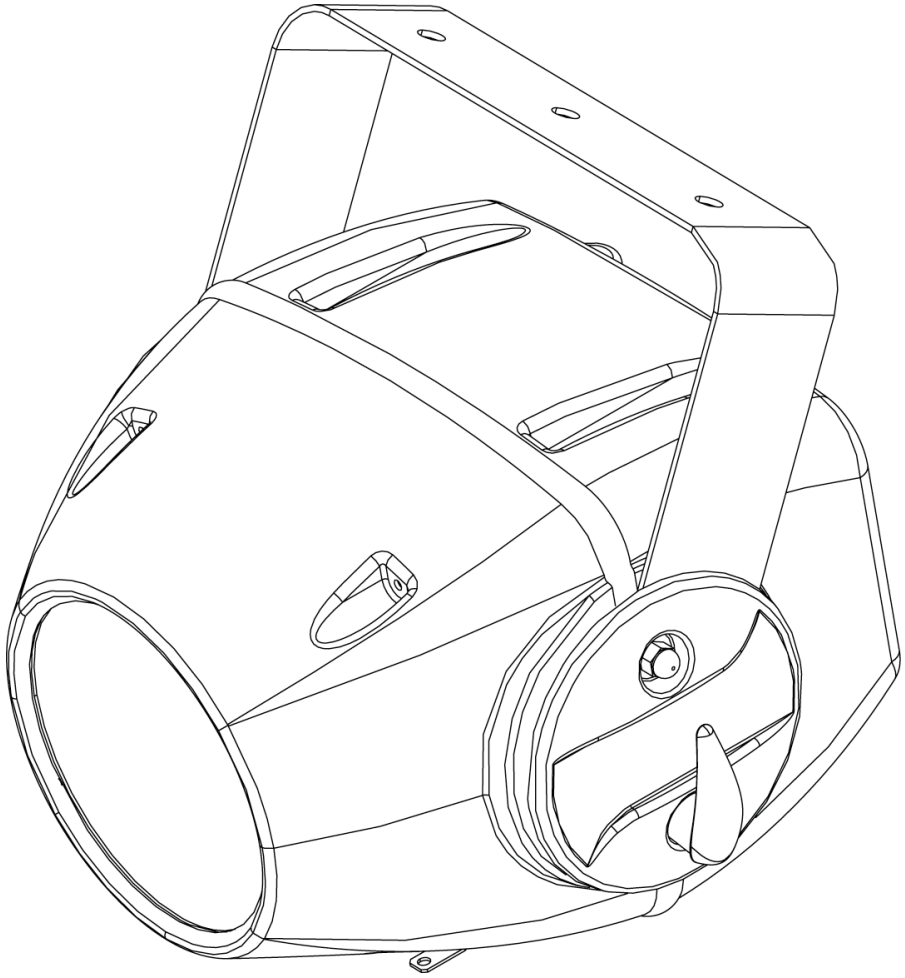


Color Tone 50

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

CONTENTS

1. GENERAL INFORMATION

INTRODUCTION*:* Congratulations, you have just purchased one of the most innovative and reliable lighting fixtures on the market today! The Color Tone 50,™ 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 Color Tone 50™ by Elation Professional®. Every Color Tone 50™ 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 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice: (323) 582-3322
Fax: (323) 582-3108
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. Please recycle whenever possible.

***WARRANTY REGISTRATION**:* The Color Tone 50™ 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) 582-3322.

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 LED lamp and will decrease gradually over time.

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

All electrical connections should be performed by a qualified electrician.

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 Color Tone 50™ 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 COLOR TONE 50™ from the power outlet before performing any service related issues.
4. Never look directly into the light source. You risk injury to your retina, which may induce blindness.
5. For safe operation, follow the Installation guide described in chapter two of this manual. Operating the COLOR TONE 50™ without suited safety aids such as safety cables or clamps can increase the risk of damage and/or personal injury.
6. Installation should only be performed by qualified and certified personal.
7. 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.
8. To reduce the risk of fire or shock, do not expose this fixture to rain or moisture.
9. 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

- Upgradable Firmware via Elation E-Loader Programming Device
- Light Source: Philips Lexel Led Module
- Convection Cooled – No Fans (Silent Operation)
- 2 DMX Channel Modes: 3 and 7
- Selectable Color Temperature from 2700K to 6500K
- Linear electronic dimmer from 0% ~100%
- Strobe effect with 1-18 flashes per second and pulse effect
- 3 selectable operation modes:
    - DMX controlled,
    - Stand alone
    - Sound activated
- Dimmer intensity from 0%~100%
- User Selectable Voltage (Internal Taps)
- Control board with 4-digit display and foil-keyboard
- 180˚ Rotating Display
- RDMX (Remote DMX addressing from any DMX console)
- Auto test for all functions
- USITT DMX-512 Complaint
- Value of each DMX-channel can be displayed
- 8 User Assignable Program Presets - Internal Program: Edit and save programs to the incorporated EEPROM through the front control panel or external controller; you can save a maximum of 48 scenes, and run the saved programs by using the “run” menu on the front control panel

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 so.

This fixture was designed for indoor use only, use of this fixture outside will void 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 .5 meter (about 1.5ft).

Always install the fixture with an appropriate safety cable. When installing the fixture in a suspended environment always be 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.

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

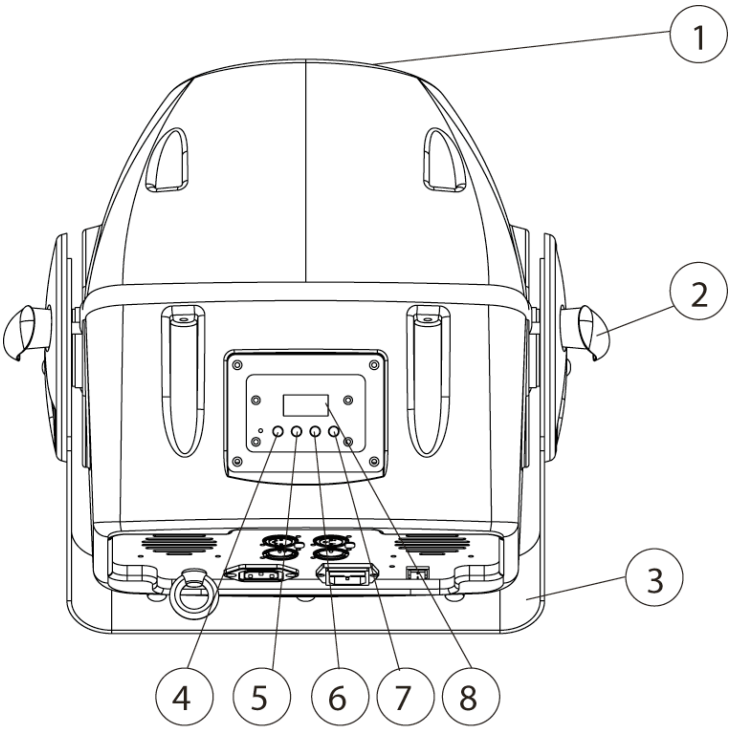
Do not permit operation by persons not qualified for operating this type of theatrical fixture; most damages are the result of operation by nonprofessionals.

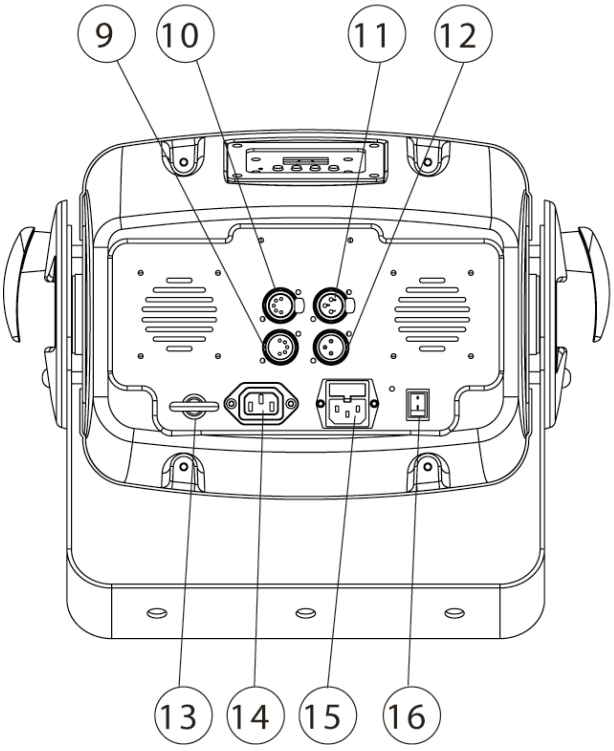
Please use the original packaging to transport the fixture in for service.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising internal condensation could damage the device. Leave the device switched off until it has reached room temperature.

If the external flexible cable or cord of this fixture is damaged, it shall be exclusively replaced by the manufacturer or an authorized service agent or a similar qualified person in order to avoid a hazard.

5. FIXTURE OVERVIEW





1) Lens
2) Angle Set Screw
3) Hanging Bracket
4) Mode/esc button
5) Up Button
6) Down Button
7) Enter Button
8) 4-Segment Display
9) 5-Pin DMX Out
10) 5-Pin DMX In
11) 3-Pin DMX Out
12) 3-Pin DMX In
13) Safety Cable Hook
14) Power Output
15) Power Input/Fuse
16) Power Switch

6. MOUNTING and INSTALLATION

Cautions:

For added protection mount fixtures in areas outside walking paths, seating areas, or in areas were a fixture might be reached by unauthorized personal.

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 (see page **12**).

To avoid injury, never stand directly below the device when mounting, removing, or servicing the fixture.

CAUTION!

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 .5 meter (about 1.5ft).

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.

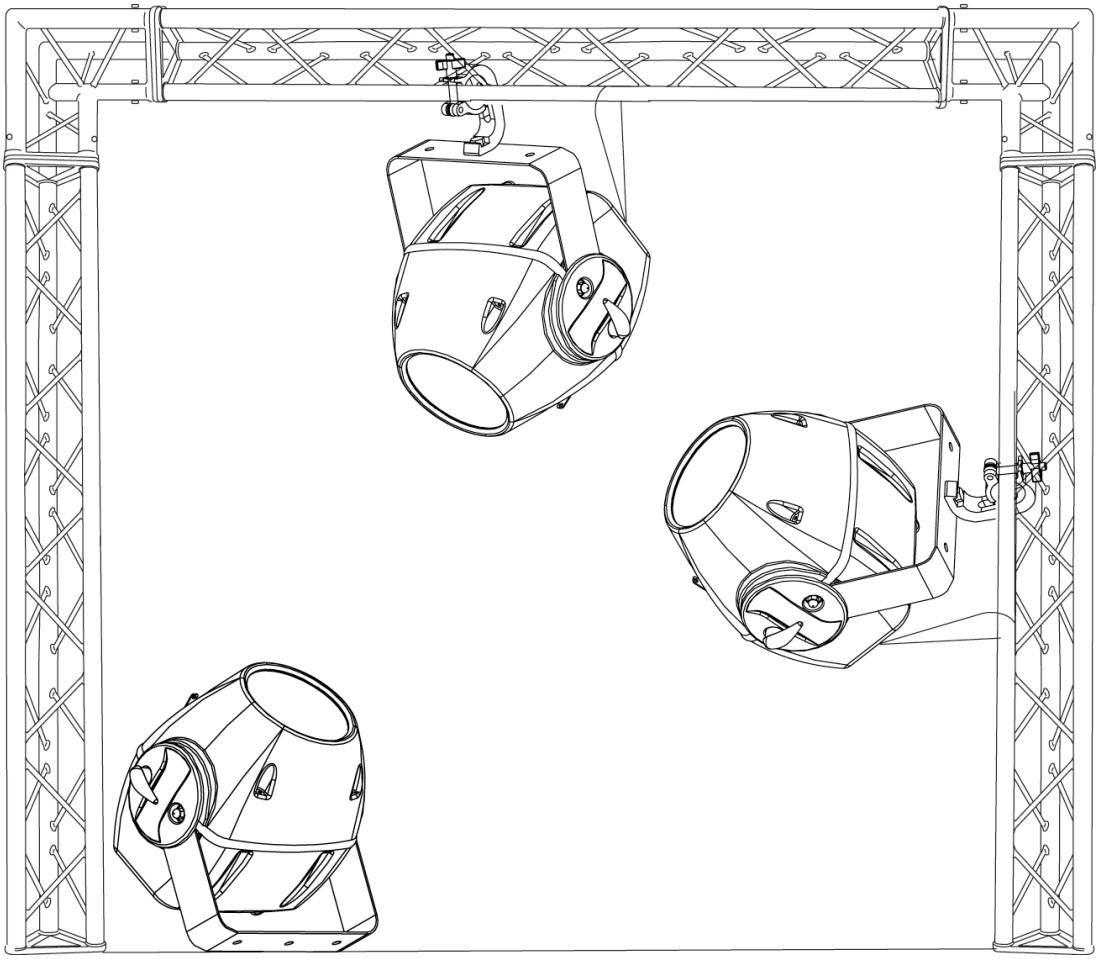
Refer to regulations BGV C1 (formerly VBG 70) and DIN VDE0711-217 for proper installation in Europe To ensure proper installation, only qualified staff should attempt installation.

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

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

Mounting

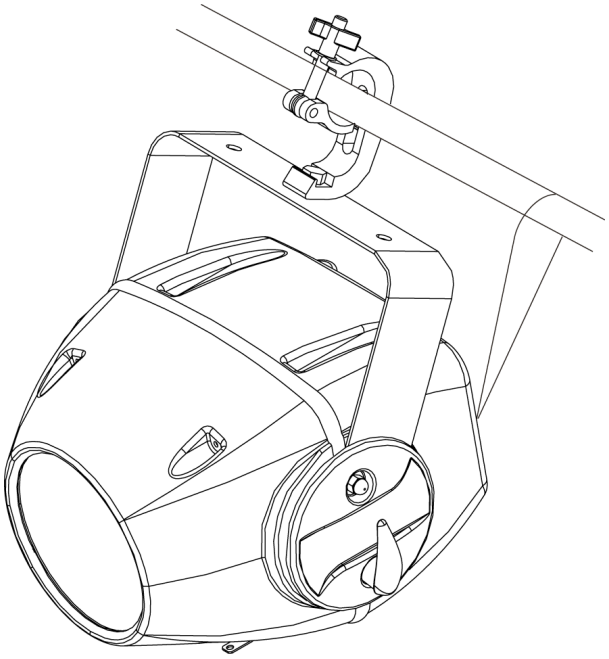
The COLOR TONE 50™ is fully operational in any mounting positions, hanging upside-down from a ceiling, side mounted, or set on a flat level surface (see illustration below). Be sure this fixture is kept at least 0.5m (1.5') away from any flammable materials (decoration, drapes, etc.). Always use and install the supplied safety cable as a safety measure to prevent accidental damage in the unlikely event of clamp failure.



Clamp Mounting

The Color Tone 50™ 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 below).

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



Securing the COLOR TONE 50™

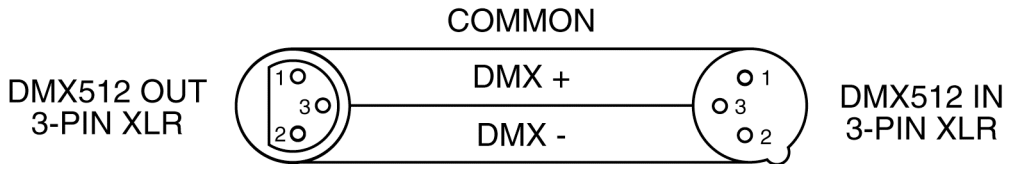
Regardless of the rigging option you choose for your COLOR TONE 50™ always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable on the hanging bracket as illustrated above. Be sure to only use the designated rigging point for the safety cable and never secure a safety cable to the hanging bracket.

7. UNDERSTANDING DMX

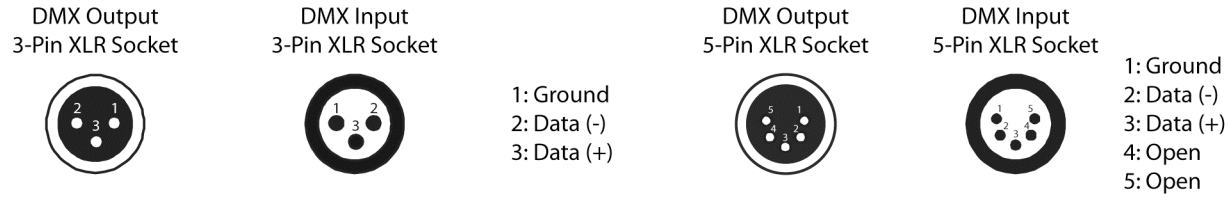
DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used by most lighting and controller manufactures as a form of communication between intelligent fixtures and controllers. DMX allows all makes and models of different manufactures to be linked together and operate from a single 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 Color Tone 50™ can be controlled via DMX-512 protocol. The Color Tone 50™ is a 3 channel DMX fixture (3 channel default, can also be a 7 channel fixture). The DMX address is set electronically using the controls on the LCD menu (see page **23** for DMX addressing).

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™.

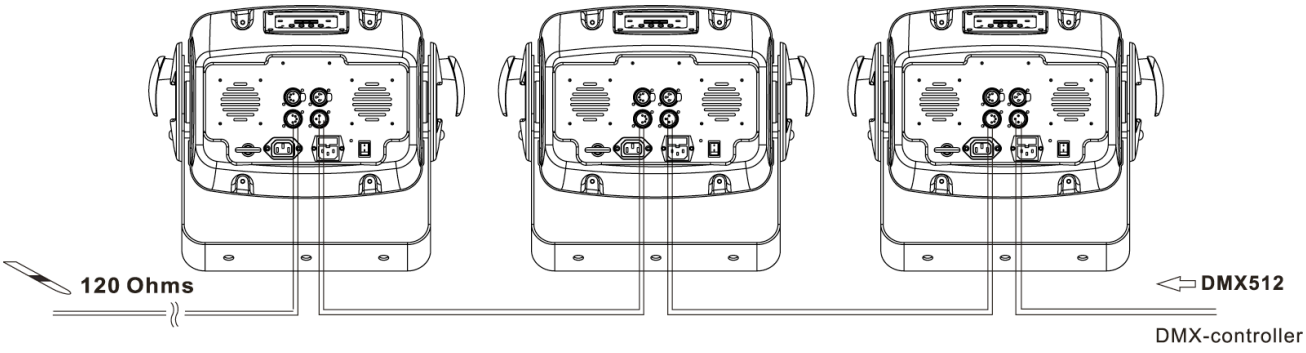


Be sure to follow the above figure when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit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



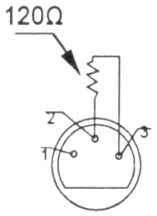
DMX-512 connection with DMX terminator

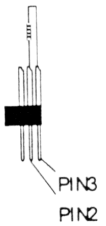
A DMX terminator should be used in all DMX lines especially in longer runs. The use of a terminator may avoid erratic behavior in your DMX line. A terminator is a 120 ohm 1/4 watt resistor that is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This fixture is inserted in 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.*



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 back 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 Color Tone 50™, which is up to a seven channel fixture, you should set the starting DMX address of the first unit to 1, the second unit to 8 (7 + 1), the third unit to 15 (7 + 8), and so on.

Note: During start-up the Color Tone 50™ will automatically detect whether a DMX data signal is being received or not. If a DMX data signal is being received, the display will show **"A.XXX" (XXX** representing the actual DMX address). If the fixture is not receiving a DMX signal the display will flash **"A.XXX" (XXX** representing the actual DMX address).

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.

8. FIXTURE MENU

On-Board System Menu: The COLOR TONE 50™ comes with an easy to navigate system menu. This next section will detail the functions of each command in the system menu.

LED Control Panel: The control panel located on the top, front of the fixture allows you to access the main menu and make all necessary adjustments to the **Color Tone 50™.** 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. Once a setting is saved the LED will briefly readout **PASS** to confirm a new setting has been made and locked into memory. You may exit the main menu at any time without making any adjustments by tapping the **MODE/ESC** button.

MODE/ESC Button - To access the main menu locate the MODE/ESC button on the front of the unit. Press this button to activate the system menu. Tap the UP button until you reach the function you wish to change. When you reach the function you wish to change tap the ENTER button once to select that menu function. When a function is selected the menu will begin to flash, use the UP or DOWN button to change the function. Once your changes are made tap the ENTER button yet again to lock the change in the system menu. To exit without making any changes tap the MODE/ESC button.

Default settings are shaded.

MODE	<ADDR>	VALU	A001~AXXX (AXXX)	DMX address setting
		SLAV	ON/OFF	Set as Slave
		RDMX	ON/OFF	Remote DMX Address Change via DMX
	<RUN>	AUTO	ALON/MAST	Auto Program – Master or Stand Alone
	<DISP>	VALU	D-XX D-00(DXXX)	Display DMX value
		FLIP	ON/OFF	Display 180˚ Rotation
		D ON	ON/OFF	Delay shutting off LED display

		LOCK	ON/OFF	Key lock (Press the MENU button for 3 seconds to activate)
SET	<CHAN>	3CH/7CH		DMX channel Mode
	<FAIL>	OFF/HOLD/AUTO		DMX Loss Configuration
	<DFSE>	ON/OFF		Restore to Default Settings
	<VER>	V-1.0~V-9.9		Software version
MANL	<RED GREN BLUE TEMP PROG STRB DIMM>	RXXX（0-255） GXXX（0-255） BXXX（0-255） TXXX（0-255） PXXX（0-255） SXXX（0-255） DXXX（0-255）		Manual adjust intensity
TIME	<LIFE>	0000~9999(hours)		Total Hour Runtime
	<CODE>	CXXX		Internal Clock Password ”038”
	<CLFE>	ON/OFF		Last Runtime Reset
EDIT	<STEP>	S-01~S-48		Select steps of program
	<SC01> ~<SC48>	RED GREEN BLUE TEMP PROG STRB DIMM	RXXX（0-255） GXXX（0-255） BXXX（0-255） TXXX（0-255） PXXX（0-255） SXXX（0-255） DXXX（0-255）	Edit the internal scenes
		FADE	XXX	
		TIME	XXX.X(000.1s~999.9 s)	

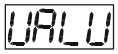
Remarks:

1) **If the fixture does not receive a DMX signal the menu display will flash repeatedly.**
2) **TIME: Adjust the hold time for each scene in built-in chase programs.**
3) **FADE: Adjust the fade time between each scene in the built-in programs.**

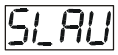
- “MODE” - Function Mode:

<ADDR> - 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 "DMX Addressing" on page 23 of this user manual.

 **"VALU" - 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 detail the changing DMX values as they are received from the controller.

 **"SLAV" - Slave setting for Master/Slave Operation**

With this function, you can define the device as slave for operation in Master/Slave mode. Each slave setting will have a different function for a dynamic lightshow without a controller.

 **"RDMX" - 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 9/Page 23 of this manual "Remote DMX addressing."

 **<RUN> - Internal Program Settings**

This function allows the internal programs to run in either stand-alone or master/salve mode. In "Master" mode the fixture will send DMX data to other fixtures connect via the DMX chain. In "Alone" mode the fixture will operate as a single fixture. The program for this mode 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.

dISP <DISP> - Menu Display Settings

This function allows the internal programs to run in either stand-alone or master/salve DMX chain. In “Alone” mode

VALU “VALU” - Display the DMX 512 value of each channel

This function will electronically display the current DMX value for any channel that is currently being adjusted. The display will automatically detail the changing DMX values as they are received from the controller. This function is “off” by default.

FLIP **“FLIP” –** This function will flip the display readout by 180˚ allowing for better visualization when the fixture is mounted in an inverted position.

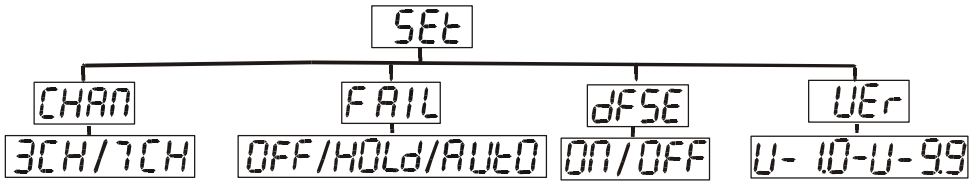
d ON **“D ON” –** The display is designed to turn off during normal operation to avoid excessive light in situations that require an extremely dark environment. This function will adjust the time delay the fixture will remain on before it turns off. ***This function is disabled as default.***

LOCK **LOCK** –This function allows you to lock the keys.

This function activates the automatic key lock command. If this function is activated, all menu keys will automatically lock whit in 15 seconds of the last menu function. To temporarily deactivate the key lock function, press and hold down the Mode/Esc-button for 3 seconds.

SEt “SET” – Fixture Personality Settings:

These functions set specific running modes and operating parameters.



CHAN <CHAN> DMX Mode settings

This function allows the fixture to run in different DMX channel modes. Two modes are available; 3 channel or 7 channel. See “DMX Traits” beginning on page 29 for a detailed explanation of the different DMX modes.

FAIL **<FAIL> DMX Fault Protection**

This function dictates how the fixture will operate in the event DMX signal is suddenly lost while operating in DMX mode. The three fail safe modes are; 1) “OFF” which will blackout all light output. 2) “HOLD,” which will hold the last DMX command, or 3 “AUTO,” which will put the fixture in sound-active mode.

dFSE **<DFSE> - Restore Default**

This function is used to restore the factory settings of the device. All settings will be set back to the default values (shaded). Any edited scenes will be lost.

UEr **<VER> Software Version**

This function will display the current firmware version.

MANL **“MANL” – Manual Fixture Settings:**

This function allows the each of the ten DMX channels to be controlled manually. This will allow the fixture to be preset to a specific color or built-in program without the use of a DMX console.

1. *Select “MANL” by pressing [UP] or [DOWN] button.*
2. *Press [ENTER], the display shows “RED”, “GREN” , “BLUE” , “TEMP” , “PROG” , “STRB” , “DIMM”.*
3. *Press [UP] or [DOWN] button to select “RED,” “GREN,” “BLUE,” “TEMP,” “PROG,” “STRB,” or “DIMM.”*
4. *Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.*

tIME **“TIME” – Operating Hours**

These functions will detail different time functions associated with the fixture.

tIME - LIFE - 0000-9999
CODE - C038
CLFE - ON/OFF

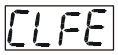
LIFE **<LIFE> (0000~9999 Hours)**

This function tracks the running time of the fixture from the point it was last cleared.

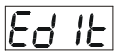
Where “XXXX ”represents the total number of running hours. This time is none destructive and will remain in the fixtures memory indefinitely. Use this time to track rentals or show durations.

 **<CODE> Clear run time access code**

This lock-out code prevents the current run time from being erased accidently. The access code is “038”

 **<CLFE> Clear Fixture Run Time**

This function resets the run time to zero.

 ***“Edit” Internal Program Settings:***

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. For detailed instructions on how to complete this task please see “Working with Built-In Programs” Section 11/ Page 27.

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.”

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

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.

9. 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. 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 “Address=XXX.” Tap the enter button to make changes to the address.
2. While the display 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. This function may be turned on and off, but is “ON” by default. Follow the procedure listed below to access the RDMX functions:

Fixture Settings*:*

Turning RDMX On/Off

1. Access the main menu and use the UP or DOWN to get to the “MODE” menu, then press ENTER
2. Once in the “Mode” menu, tap the UP or Down to get to the “RDMX“ menu, press ENTER.
3. Once in the “RDMX” menu tap the UP or Down to toggle between “ON” and “OFF".
4. When “ON” is highlighted in the display tap the ENTER button to activate the RDM function.
5. Press MODE/ESC to return to the main menu.

Controller Settings*: (assuming the fixture is addressed at 001)*

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. The above example assumes the fixture is addressed at 001, for any other address follow the above instruction for the actual staring address in place of 1. . ***For example:*** If you want to set the starting address to 57, when the starting address is set at 163. Set channel 163 to a value of “7,” set channel 164 to a value of “7” and use channel 165 to set your address to 57 by selecting a channel value of 57.
5. ***Wait for approximately 20 seconds for the unit to complete the address reset function.***

10. OPERATION

***Operating Modes**: The Color Tone 50™ can operate in four 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.

• ***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.

10.1 Stand-Alone Operation (Auto Program): 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.
- ***:*** Access the menu and select MODE-RUN-AUTO, this will give you access to the “Auto Program” submenu. See page **17** for the menu breakdown.

10.2 Master/Slave Operation (Auto Program): 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 Color Tone 50 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).

10.3 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 Color Tone 50™ uses up to 7 DMX channels. See page **30** for detailed description of the DMX traits. To control your fixture in DMX mode, follow the set-up procedures on pages **13-16** 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 **23** 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.

11. 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:

Quick Access Programs (Program Part): 3

Total Number of Programs: 10

Maximum Number of Steps (Scenes) per a Program: 64

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 a scene follow the instructions below:

- Access the main menu and toggle to "Edit Programs."
- Then tap the "ENTER" button and toggle to "Edit Scenes.".
- When you get to the "Edit Scenes" function tap the "ENTER" button. The screen will then change to Edit Scene 001. 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 seven of the fixture's channels.
    - Red
    - Green

- Blue
- “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.”
- Then tap the “ENTER” button and toggle to “Program 1.”
- When you get to the “Program 1” function tap the “ENTER” button. The screen will

then change to Edit Steps 01. 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.

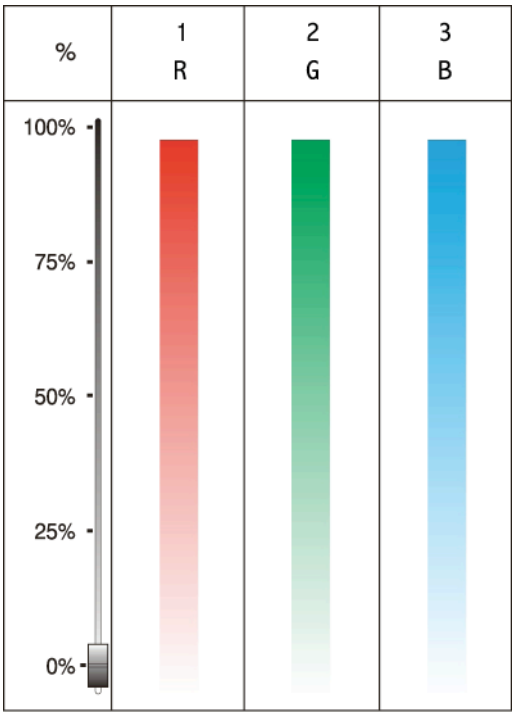
Step 3 – Playing a Program

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 10.2 “Master/ Slave Operation” on page **26** for proper set-up instructions. Select “Alone” when running a single fixture or when multiple fixtures in stand-alone mode. See section 10.1 “Stand-Alone Operation” on page **25** for proper set-up instructions.

12. DMX CHANNEL TRAITS

The charts below detail the channel layout for both the 3-channel and the 7-channel mode.



Channel 1: Red

Channel 2: Green

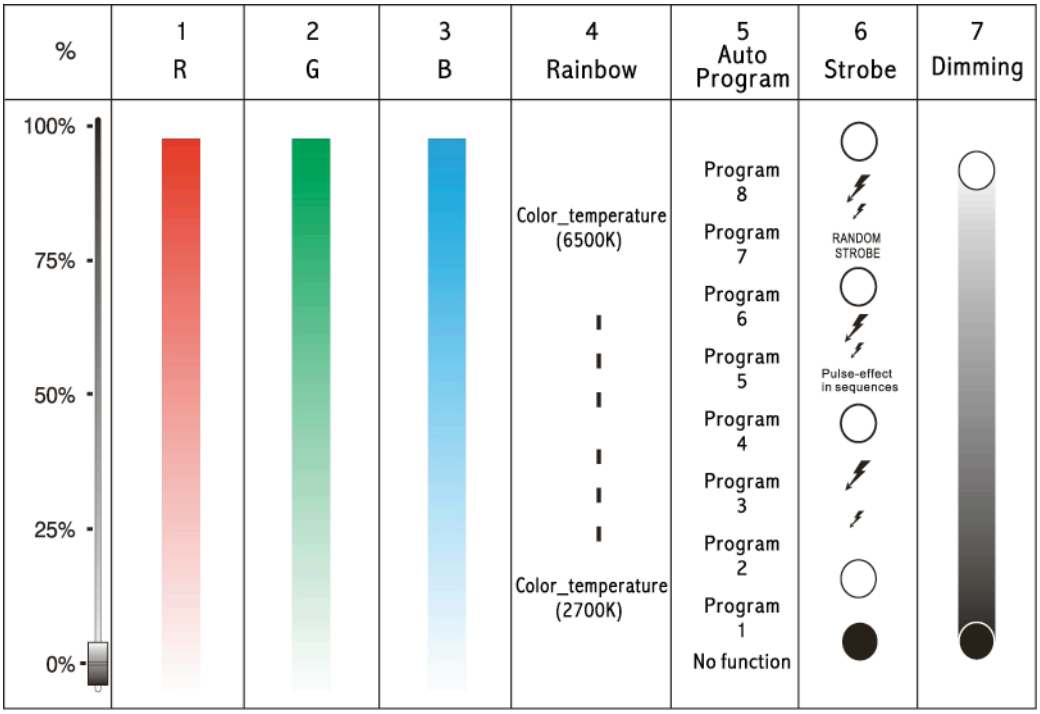
Channel 3: Blue

Channel 4: Color Temperature

Channel 5: Built-In Programs

Channel 6: Strobe

Channel 7: Dimmer



DMX channel function and values:

Elation Professional - COLOR TONE 50			
DMX channel functions and values:			
Mode/Channel		**Value**	**Function**
3 CH	**7 CH**		
Red Value			
1	**1**	**0-255**	**Red 0~255 (0-Off, 255-100% Red)**
Green Value			
2	**2**	**0-255**	**Green 0~255 (0-Off, 255-100% Green)**
Blue Value			
3	**3**	**0-255**	**Blue 0~255 (0-Off, 255-100% Blue)**
White Temperature (7-Channel Mode)			
	4	**0-21**	**No function**
		22-27	**Color temperature (2700K)**
		28-33	**Color temperature (2800K)**
		34-39	**Color temperature (2900K)**
		40-45	**Color temperature (3000K)**
		46-51	**Color temperature (3100K)**
		52-57	**Color temperature (3200K)**
		58-63	**Color temperature (3300K)**
		64-69	**Color temperature (3400K)**
		70-75	**Color temperature (3500K)**
		76-81	**Color temperature (3600K)**
		82-87	**Color temperature (3700K)**
		88-93	**Color temperature (3800K)**
		94-99	**Color temperature (3900K)**
		100-105	**Color temperature (4000K)**

		106-111	**Color temperature (4100K)**
		112-117	**Color temperature (4200K)**
		118-123	**Color temperature (4300K)**
		124-129	**Color temperature (4400K)**
		130-135	**Color temperature (4500K)**
		136-141	**Color temperature (4600K)**
		142-147	**Color temperature (4700K)**
		148-153	**Color temperature (4800K)**
		154159	**Color temperature (4900K)**
		160-165	**Color temperature (5000K)**
		166-171	**Color temperature (5100K)**
		172-177	**Color temperature (5200K)**
		178-183	**Color temperature (5300K)**
		184-189	**Color temperature (5400K)**
		190-195	**Color temperature (5500K)**
		196-201	**Color temperature (5600K)**
		202-207	**Color temperature (5700K)**
		208-213	**Color temperature (5800K)**
	4	**214-219**	**Color temperature (5900K)**
		220-225	**Color temperature (6000K)**
		226-231	**Color temperature (6100K)**
		232-237	**Color temperature (6200K)**
		238-243	**Color temperature (6300K)**
		244-249	**Color temperature (6400K)**
		250-255	**Color temperature (6500K)**
Internal Programs (7-Channel Mode)			
	5	**0-10**	**No function**
		11-40	**Internal program 1**

		41-70	**Internal program 2**
		71-100	**Internal program 3**
		101-130	**Internal program 4**
		131-160	**Internal program 5**
		161-190	**Internal program 6**
		191-220	**Internal program 7**
		221-255	**Internal program 8**
Special (7-Channel Mode)			
	6	**0**	**No function (shutter open)**
		1-95	**Strobe effect slow to fast**
		96-127	**No function (shutter open)**
		128-159	**Pulse Effect in sequences**
		160-191	**Pulse Effect - Random**
		192-223	**Random strobe effect slow to fast**
		224-255	**No function (shutter open)**
Dimmer (7-Channel Mode)			
	7	**0-255**	**Dimming 0~255 (0-Off, 255-100%)**
			Speed, slow to fast (when running internal programs)

13. 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). 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.

CAUTION!
Disconnect from mains before starting maintenance operation.

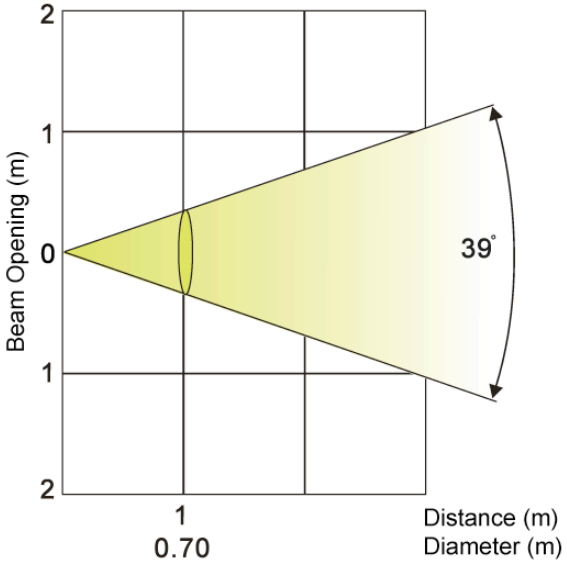
We recommend a frequent cleaning of the device. Please use a moist, lint- free cloth. Never use alcohol or solvents.

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

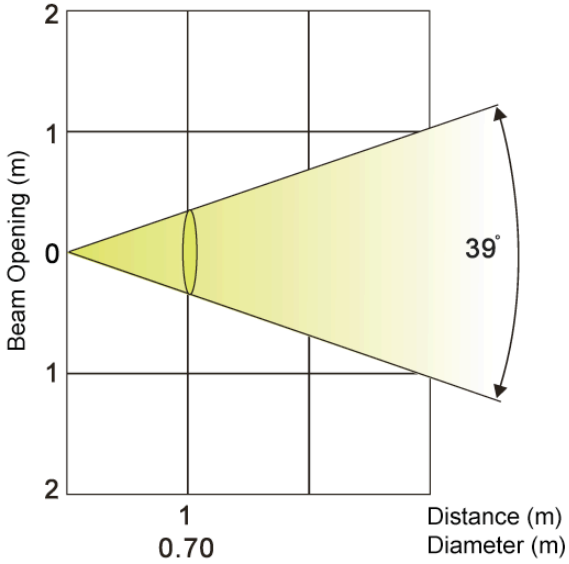
Should you need any spare parts, please order genuine parts from your local dealer.

14. PHOTOMETRIC DATA

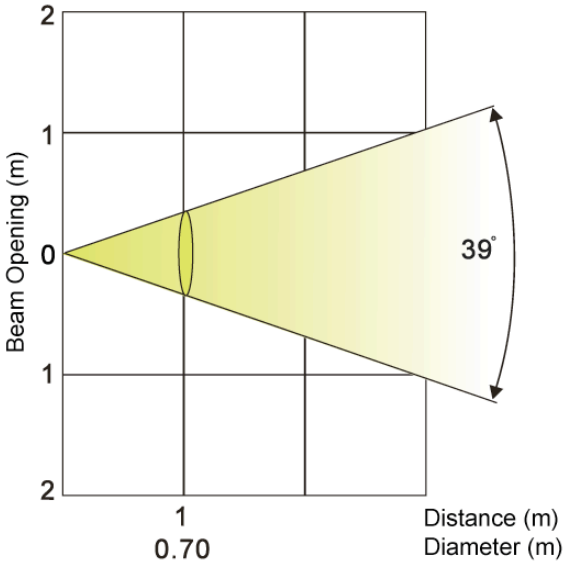
Red LEDs / Beam Angle 39°
Intensity in LUX = 292



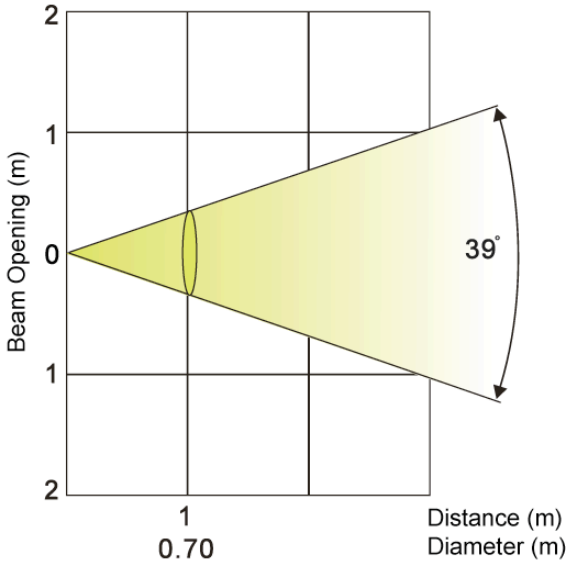
Green LEDs / Beam Angle 39°
Intensity in LUX = 384



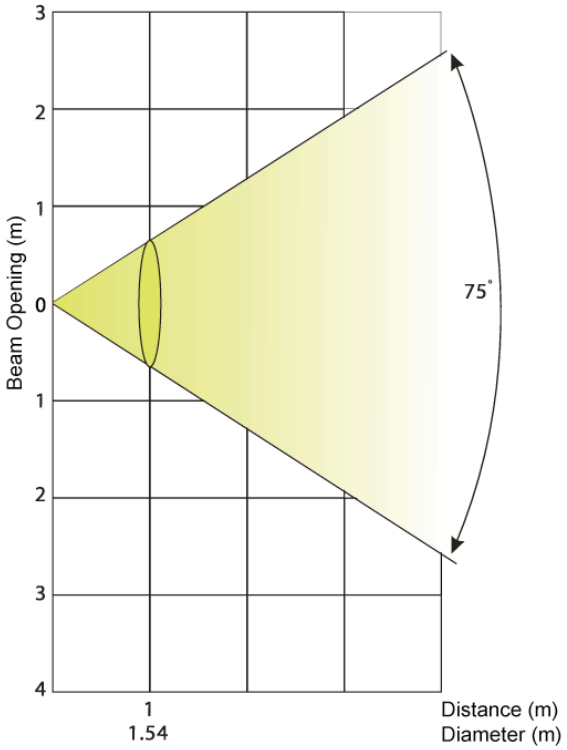
Blue LEDs / Beam Angle 39°
Intensity in LUX = 111



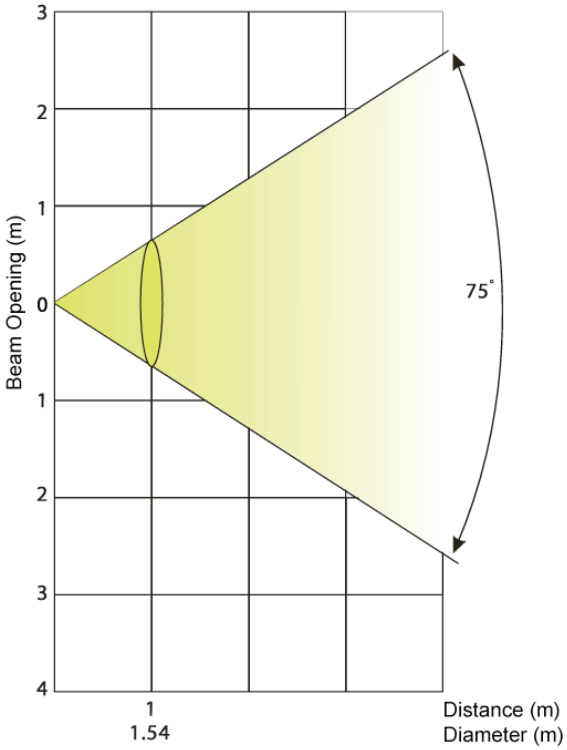
Combined Output / Beam Angle 39°
Intensity in LUX = 955



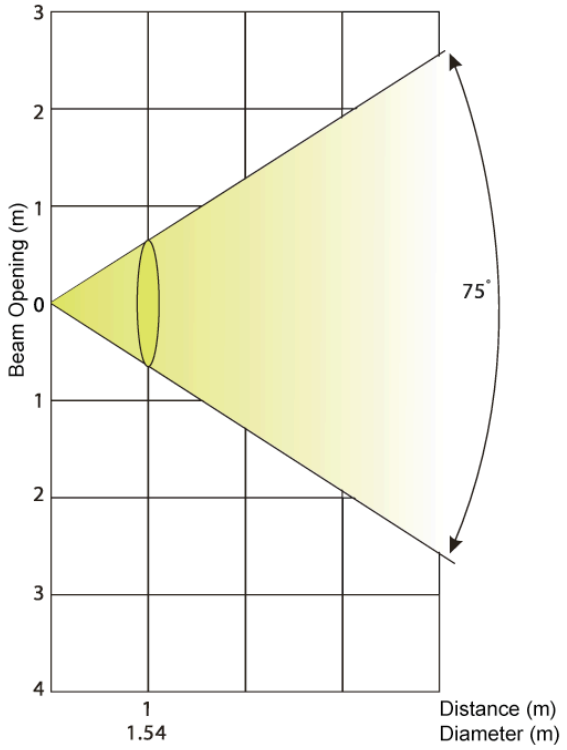
Red LEDs / Field Angle 75°
Intensity in LUX = 292



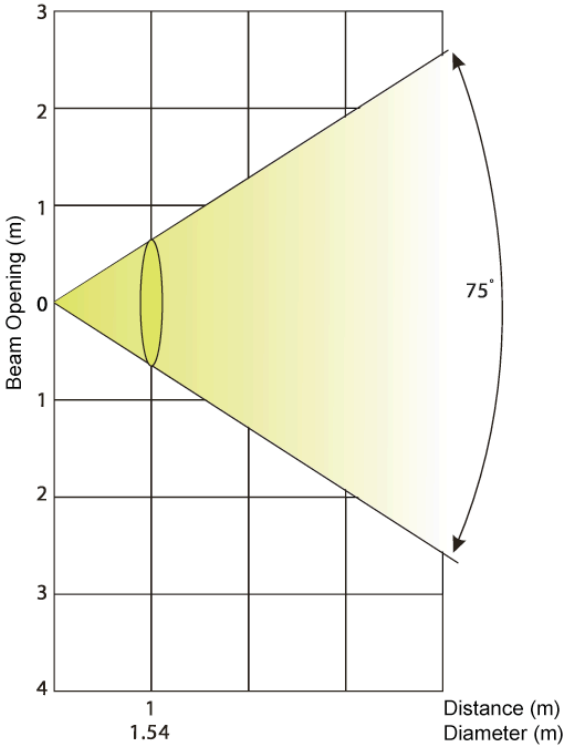
Green LEDs / Field Angle 75°
Intensity in LUX = 384



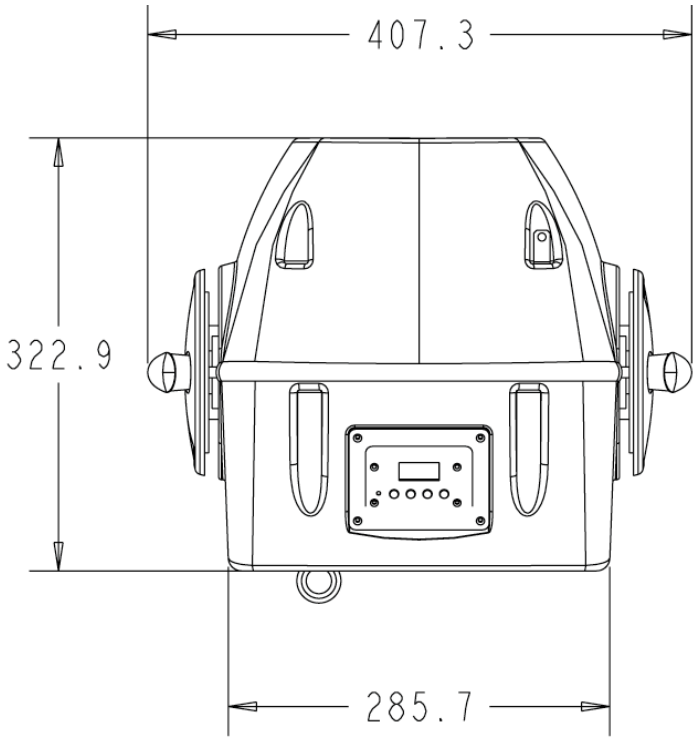
Blue LEDs / Field Angle 75°
Intensity in LUX = 111

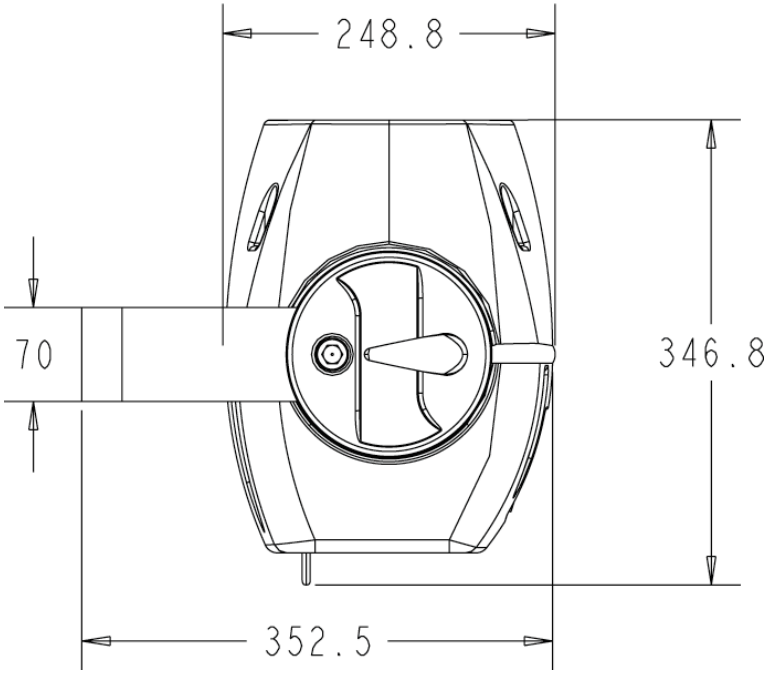


Combined Output / Field Angle 75°
Intensity in LUX = 955

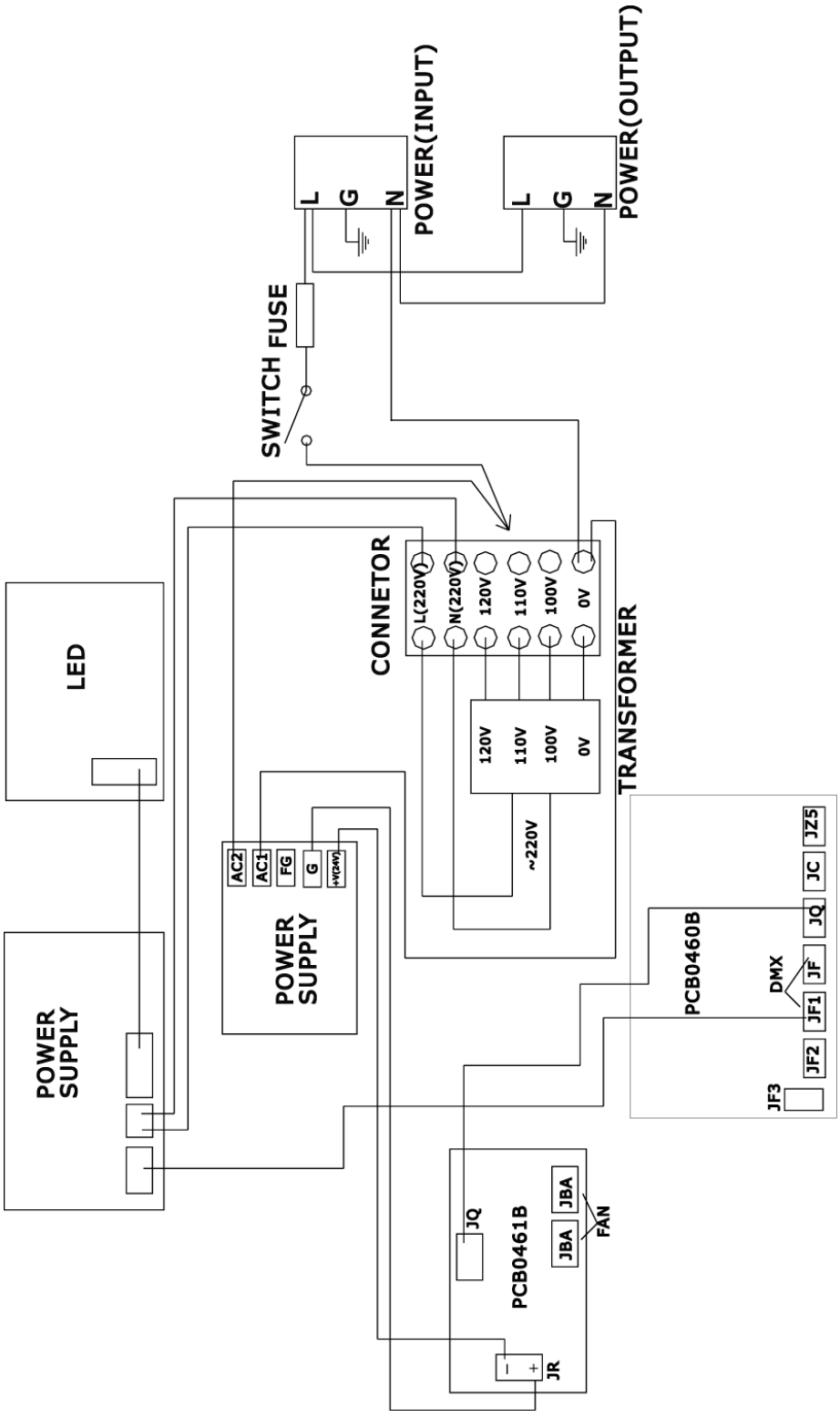


15. DIMENSIONAL DRAWINGS





16. CIRCUIT SCHEMATIC



17. 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.

18. TECHNICAL SPECIFICATIONS

Power supply:	
Operating Voltage	☐100VAC, 50Hz;☐120VAC, 50Hz;☐208VAC, 50Hz; ☐220VAC, 50Hz;☐230VAC, 50Hz;☐240VAC, 50Hz; ***or*** ☐100VAC,60Hz;☐120VAC,60Hz;☐208VAC,60Hz; ☐ 220VAC,60Hz;☐230VAC,60Hz;☐240VAC,60Hz;
Fuse protection	120V = 1/250V, GMA (5x20mm fine-wire fuse) 220V = 1/250V, GMA (5x20mm fine-wire fuse)
Power consumption	30 watts nominal
LED Source:	
Type	Lexel LED Modules (Phillips)
Life time	50,000 Hrs
Color temperature	2700˚~6500˚ K
Luminous flux	1,000 Lm
Optical system:	
Beam Angle: 39˚	
Field Angle: 75˚	
Color Mixing:	
RGB Additive Color Mixing	
Shutter / Strobe / Dimmer:	
Strobe-effect with variable speed 1 - 18 flashes per second	
Continuous electronic dimmer 0 - 100%	
DMX Channels:	
3 or 7	
DMX 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].	
Weights and measures:	
Dimensions	35.3cm (H) x 40.1cm (W) x 34.7cm (D) ~ Unit Dimensions (Vertical) 13.9” x 15.8” x 13.7”
Weight (net)	8.2Kgs / 18Lbs

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

Elation Professional
6122 South Eastern Ave
Los Angeles, CA. 90040
323-582-3322 / 323-582-3108 fax
www.ElationLighting.com /Info@ElationLighitng.com