

Design LED 12 Brick

Elation Professional™
4295 Charter Street
Los Angeles, Ca 90058
www.elationlighting.com

TABLE OF CONTENTS

CONTENTS

1. General Information.....	3
a. Introduction.....	3
b. Unpacking.....	3
c. Customer Support.....	3
d. Warranty Registration.....	4
2. Safety Instructions.....	5
3. Features.....	7
4. General Guidelines.....	8
5. Fixture Overview.....	9
6. Mounting and Installation.....	11
a. Yoke Assembly.....	11
b. Mounting Positions.....	13
c. Mounting Points.....	13
d. Securing.....	14
7. Understanding DMX.....	16
a. DMX Connections.....	16
b. DMX Terminator.....	17
c. 3-Pin to 5-Pin Conversion.....	17
d. Understanding DMX Addressing.....	18
8. Operation Modes.....	19
a. DMX Mode Selection.....	19
b. Manual Settings.....	19
9. DMX Traits.....	22
a. 6-Channel Mode.....	23
b. 12-Channel Mode.....	24
c. 15-Channel Mode.....	26
d. DMX Dipswitch Reference Chart.....	29
10. Cleaning and Maintenance.....	30
11. Warranty.....	31
12. Photometric Data.....	33
13. Dimensional Drawings.....	34
14. Circuit Schematic.....	35
15. Technical Specifications.....	36

1. GENERAL INFORMATION

INTRODUCTION: Congratulations, you have just purchased one of the most innovative and reliable LED fixtures on the market today! The Design LED 12 Brick,™ 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 LED 12 Brick™ by Elation Professional®. Every Design LED 12 Brick™ 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 fixture for damage and be sure all accessories necessary to operate the fixture have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Inside the box you should find: the fixture, a DMX XLR cable, a safety cable, and this manual. 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 Design LED 12 Brick™ 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.

2. SAFETY INSTRUCTIONS



To guarantee proper and consistent operation, it is important to follow the guidelines in this manual. Elation Professional 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.
3. Never look directly into the lamp beam. You risk injury to your retina, which may induce blindness.
4. For safe operation, follow the Installation guide described in chapter two of this manual. Operating the Design LED 12 Brick™ without suited safety aids such as safety cables or clamps can increase the risk of damage and/or personal injury.
5. Installation should only be performed by qualified and certified personal.
6. When mounting this fixture, use only the original rigging points included with this fixture. Any structural modification will void the original manufactures warranty and may increase the risk of damage and/or personal injury.
7. To reduce the risk of fire or shock, do not expose this fixture to rain or moisture.
8. Do not attempt to operate this fixture if the power cord has become damaged or frayed.
9. **Never open this fixture while in use.**
10. This device falls under protection-class I. Therefore it is essential that the device be grounded properly.
11. All electrical connections must performed by qualified personal.
12. 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.

13. Always disconnect from main power before performing any type of service or any cleaning procedure.
14. Only handle the power cord by the plug. Never pull out the plug by tugging the wire portion of the cord.
15. ***Please be aware that damages caused by modifications to the device are not subject to warranty.***

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.

**CAUTION!**

Never touch the device during operation!
The housing may heat up

**CAUTION!**

Never look directly into the light source,
as sensitive persons may suffer an epileptic shock.

3. FEATURES

- Low power consumption
- Minimal heat emission
- Maintenance free operation
- Equipped with 12 one-watt LEDs: (4 red, 4 blue, 4 green)
- High power LEDs manufactured by Lumileds, USA
- 100,000 hours ***rated*** LED life
- Step less RGB color changing
- USITT DMX-512 Complaint
- Preprogrammed colored macros
- Strobe-effect with a maximum flash rate of 18fps
- DMX-controlled operation or stand-alone operation with Master/Slave-function
- 8 built-in programs can be called up via DMX-controller
 - ~ 48 preprogrammed scenes per a program
- Sound-controlled via built-in microphone
- Three DMX Modes:
 - 15 DMX-channel
 - 12 DMX-channel
 - 6 DMX-channel
- DMX-control via standard DMX-controller
- Flicker-free operation for television and film
- Compact design: fits in 12" box truss
- Brilliant light output

4. GENERAL GUIDELINES

This fixture is a professional lighting effect designed for use on stage, in nightclubs, in theatres, and other types of architectural installations. 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 outside will void the manufacture's warranty.

Consistent operational breaks will 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 fixture.

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 appropriately rated 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 only inserted in the yoke's mounting holes.

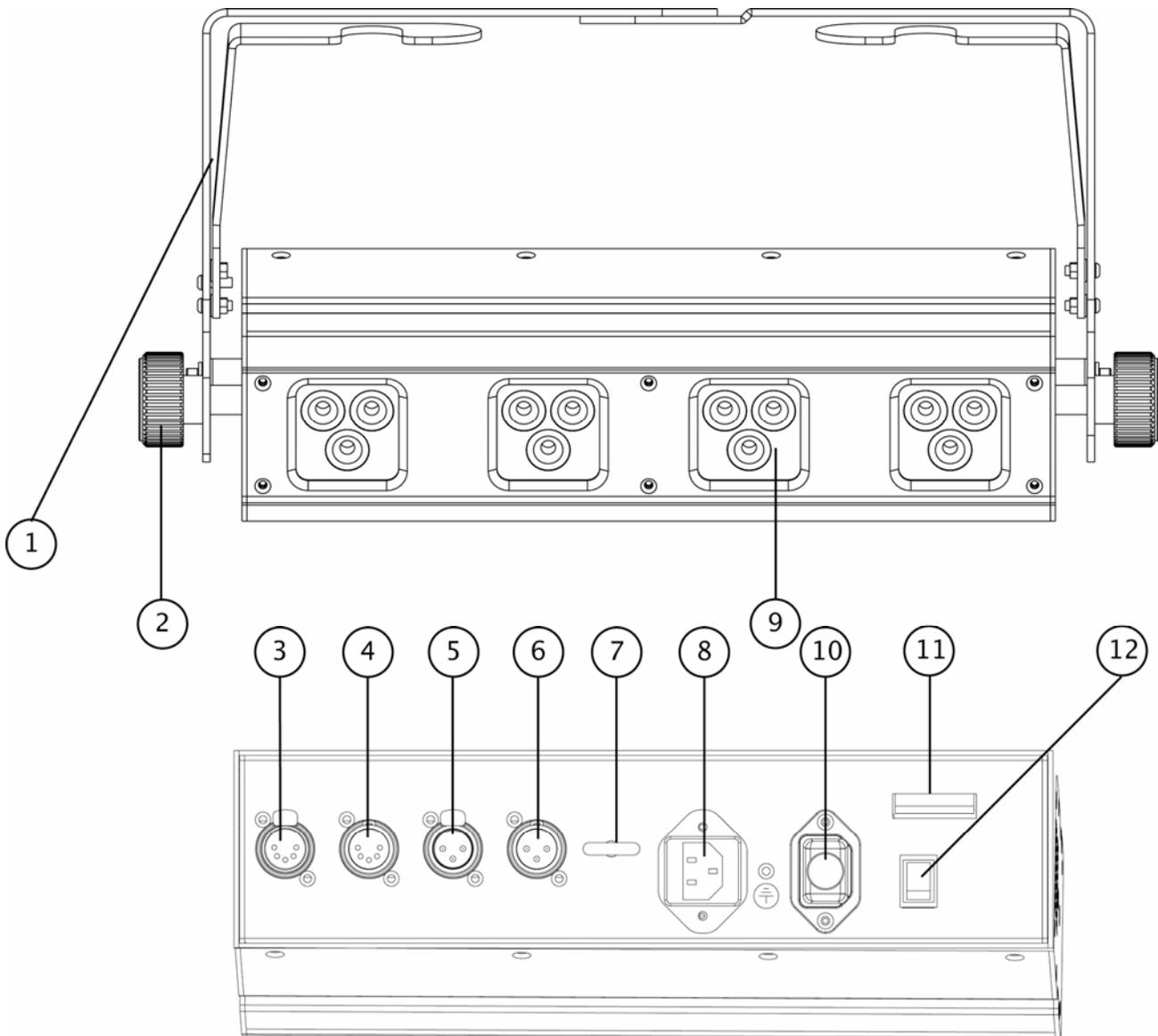
Do not attempt to operate this fixture until you have familiarized yourself with all of its functions.

Do not permit operation by persons not qualified for operating this type of theatrical fixture. Most damages are the result of improper operation.

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

For your own safety, please read this user manual carefully before installing the device.

5. FIXTURE OVERVIEW



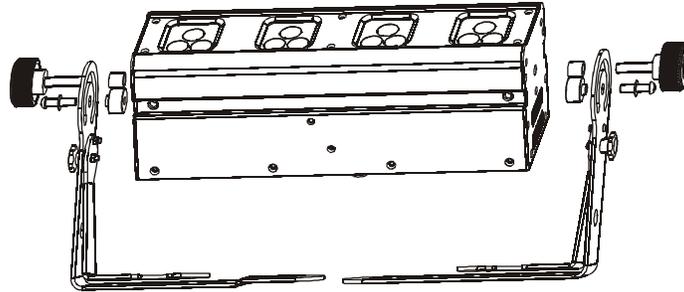
1. **Hanging Bracket** – The unit uses a unique sectional bracket that allows the unit to be hung, mounted, or stood straight up.
2. **Bracket Locking Knob** – This knob is used to secure the bracket in place after angle adjustments have been made.

3. **DMX In Jack** – This jack accepts an incoming DMX signal via a male, 5-pin XLR jack.
4. **DMX Out Jack** – This jack is used to send an incoming DMX signal to the next fixture in the DMX chain via a female, 5-pin XLR jack.
5. **DMX In Jack** – This jack accepts an incoming DMX signal via a male, 3-pin XLR jack.
6. **DMX Out Jack** – This jack is used to send an incoming DMX signal to the next fixture in the DMX chain via a female, 3-pin XLR jack.
7. **Eye-Bolt** – Use this bolt as a safety-cable rigging point. Always secure any installation with a properly rated safety-cable.
8. **Power Input/Fuse Holder Assembly** – This assembly holds the safety fuse as well as provides a female IEC connector for a power cord. Always replace the fuse with an exact match unless otherwise specified by an authorized Elation Service Technician. Using a fuse other than that specified could seriously damage the unit and will void your manufactures warranty.
9. **Diffusion Lens** – This lens is used to both protect the LEDs as well as diffuse the light output.
10. **Power Output Jack** – Use this jack to jump power to another Design LED 12 Brick™ in an array system.
11. **Dipswitch Assembly** – These dipswitches are used to set the DMX address, master–slave settings, and other special functions. See the dipswitch chart on page 16 for more information on the dipswitch functions.
12. **On/Off Power Switch** – Controls main power to the unit.

6. MOUNTING AND INSTALLATION

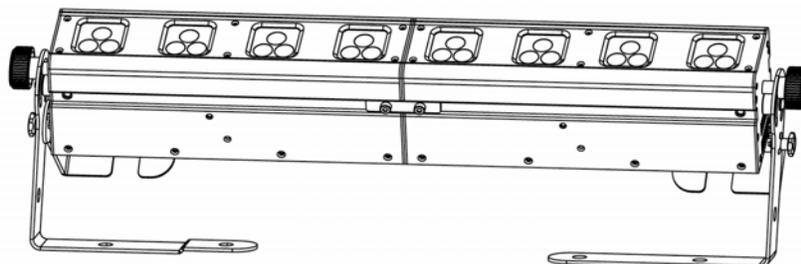
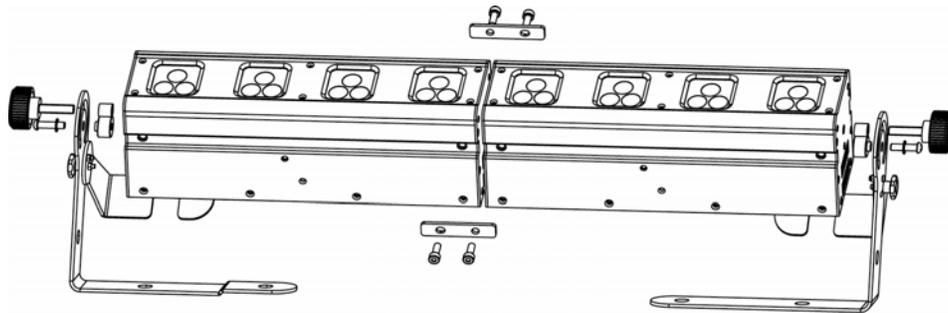
Yoke Assembly – Single Unit Operation

The device can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics. When connecting the hanging yoke to the fixture, refer to the illustration below.



Yoke Assembly – Multiple Unit Operation

You can connect up to four Design LED 12 Bricks together in a bar assembly. To connect multiple units together use the included mounting hardware and refer to the diagram below.



Please note: To ensure maximum stability, no more than four units should be mounted together in this fashion. Connecting more than four units will result in an unstable assembly, which could collapse and damage the units.

Cautions:

For added protection mount the fixtures in areas outside walking paths, seating areas, and away from areas where the fixture might be reached by unauthorized personnel.

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.

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



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.

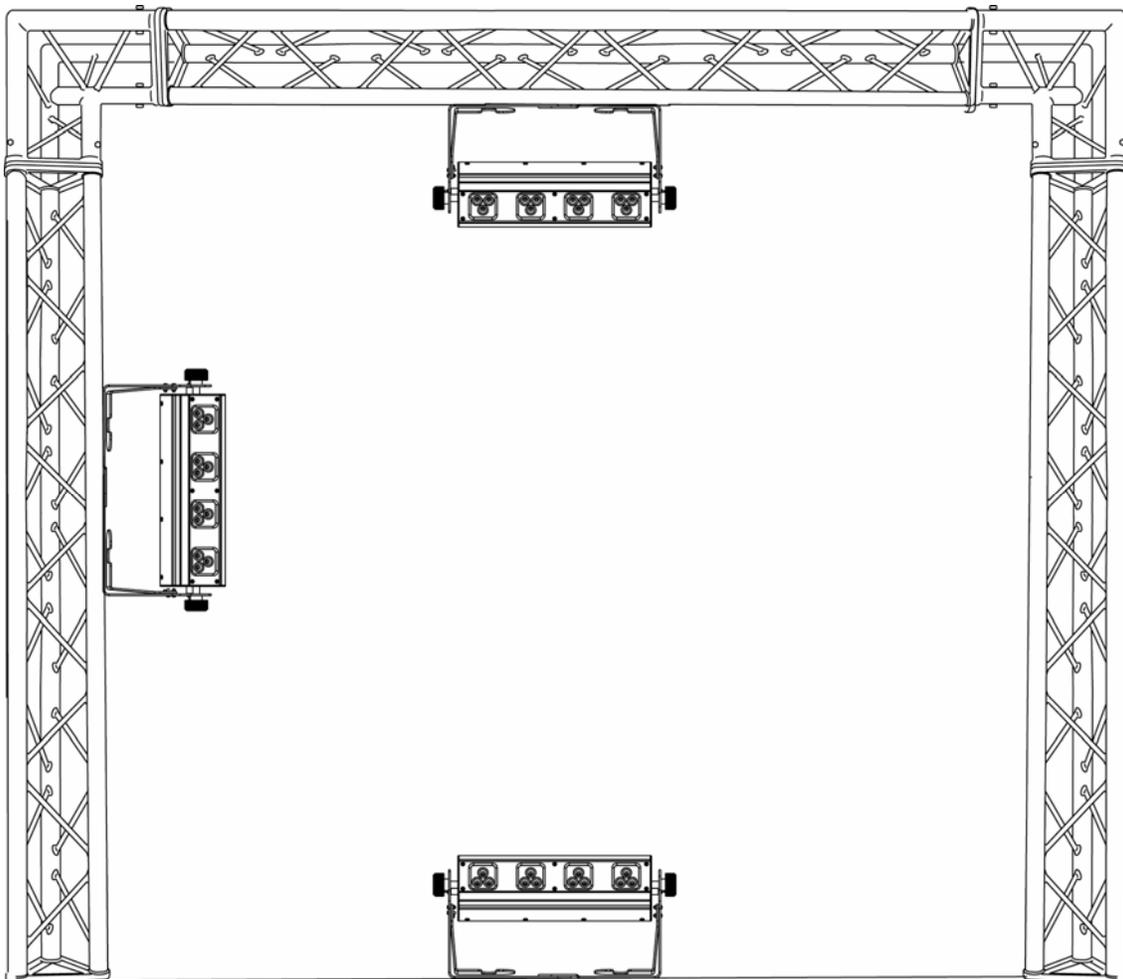
Mounting points

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.

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

Mounting

The Design LED 12 Brick™ is fully operational in three different mounting positions, hanging upside-down from a ceiling, side mounted, or set on a flat level surface. Be sure this fixture is kept at least 0.5m away from any flammable materials (decoration etc.). When clamp mounting; always use and install the supplied safety cable as an added safety measure to prevent accidental damage in the event of a clamp failure. **See the image below.**



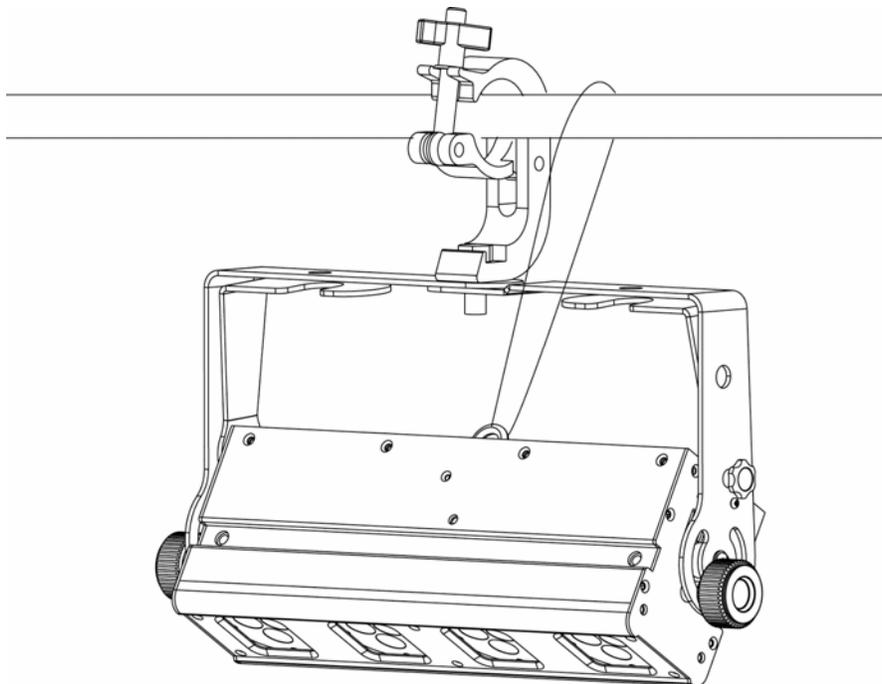


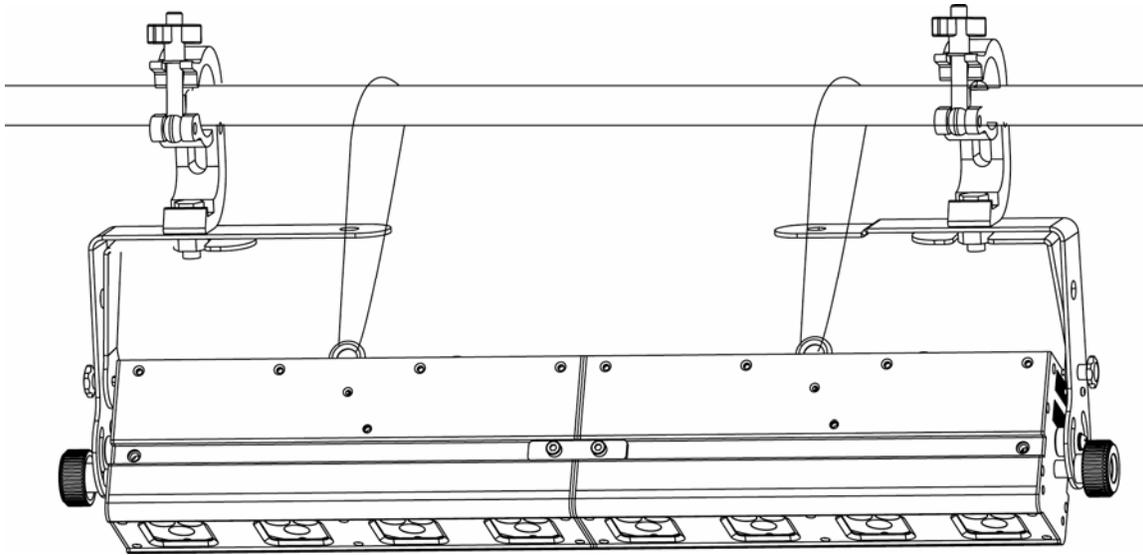
CAUTION!
Be sure all electrical connections are performed by a qualified electrician before attempting any operation.

Clamp Mounting

The Design LED 12 Brick™ provides a unique mounting bracket assembly that allows the unit to stand on flat surface, hang on truss via a clamp, or be used in cluster allow multiple units to rigged together (see the illustration below). Regardless of the mounting option you choose please refer to the safety guidelines in this manual to avoid damage to the unit and/or injury to persons.

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 attach at least one properly rated safety cable to the fixture. See illustration on next page.





Securing the Design LED 12 Brick™



Always be sure to secure your fixture with a safety cable when suspending the unit from truss or other means. The fixture provides a built-in rigging point for a safety cable 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

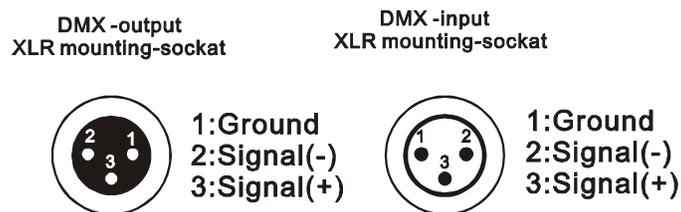
Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation):

Your fixture and your DMX controller require a standard 3-pin XLR connector for data input and data output (see figure below). Be sure to only use properly rated DMX cables for DMX operation and not standard audio cables. If you are constructing your own cables be sure to use two conductor shielded digital cable rated at a 120 ohms (this cable can be purchased at almost all professional sound and lighting stores). Your cables should be made with a male and female 3-pin XLR connector on either end of the cable.



Please note: This is not the same as audio microphone cable. Audio cable has a different resistance rating

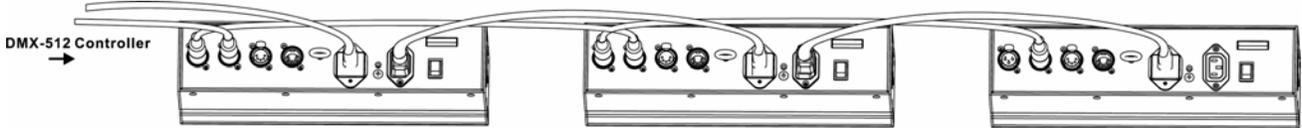
Be sure to follow the above figure when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit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



DMX-512 control connection

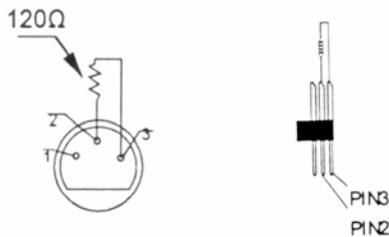
Connect the provided DMX XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head (Please refer to the diagram below.). You can chain multiple moving heads together through serial linking. The cable needed should be two conductor, shielded cable with XLR input and output connectors.

Always be sure 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™.



DMX-512 connection with DMX terminator

When longer runs of cable are used, you may need to use a terminator on the last fixture to avoid erratic behavior. 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 cable terminator (Elation part number Z-DMX/T) will decrease the possibilities of erratic behavior.



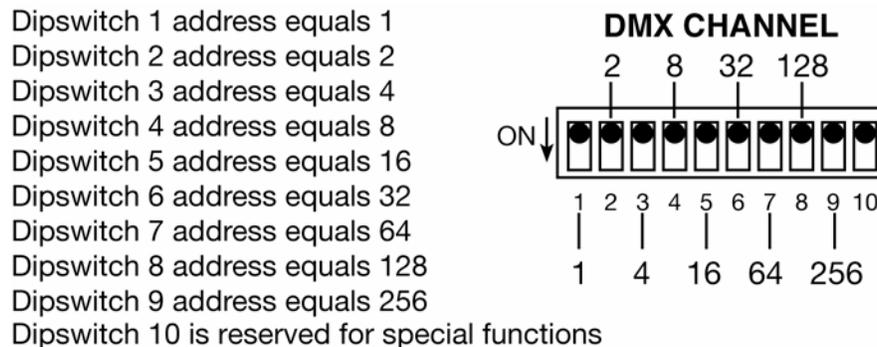
Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

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 chart on the next page 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

Understanding 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 combining various dipswitches located on the rear 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 LED 12 Brick™, which is a 15 channel fixture (default), you should set the starting DMX address of the first unit to 1, the second unit to 16 (15 + 1), the third unit to 31 (15 + 16), and so on. The chart on page 24 details the proper starting DMX address dipswitch setting combination.

NOTE: The Design LED 12 Brick contains a total of 12 dipswitches. Only use dipswitches 1~9 to set the DMX address. Dipswitches 10~12 are used for special functions that will be explained on the next page.

8. OPERATING MODES

This fixture can run in three different DMX modes. The chart below describes how to access the different DMX modes. The chart below also defines the how the channel will function in the different DMX modes.

DMX Operation mode	DIP #12	DIP #11	LED control Mode	LEDs control channels	Preset programs channel	Strobe channel	Master dimming/ program speed
15CH	OFF	OFF	Each Led can be run individually	1~12	13	14	15
12CH	OFF	ON	Each Led can be run individually	1~12			
6CH	ON	OFF	R, G, B run by group	1~3	4	5	6

Dipswitches 11 & 12: DMX Mode Selection, See the chart above; 15, 12, or 6 channel modes.

Dipswitch 10: Sound-active operation when used as a single stand-alone unit or “master” unit.

Manual Settings: The chart bellows details the dipswitch setting for various manual settings. Refer to the chart on page 20 for specific static color settings and internal program access.

Operating Mode:	Dip # 11	Dip #10	Dip #9	Dip #8	Dip #7	Dip #6	Dip #5	Dip #4	Dip #3	Dip #2	Dip #1
No function	OFF	OFF	N/A								
Sound control-Stand Alone	OFF	ON	N/A								
Static R, G, B (Refer to Table 3)	ON	OFF	N/A	N/A	OFF	Blue	Blue	Green	Green	Red	Red
Preset Program 1	ON	OFF	Speed	Speed	ON	OFF	OFF	OFF	OFF	OFF	ON

Preset Program 2	ON	OFF			ON	OFF	OFF	OFF	OFF	ON	OFF
Preset Program 3	ON	OFF			ON	OFF	OFF	OFF	ON	OFF	OFF
Preset Program 4	ON	OFF			ON	OFF	OFF	ON	OFF	OFF	OFF
Preset Program 5	ON	OFF			ON	OFF	ON	OFF	OFF	OFF	OFF
Preset Program 6	ON	OFF			ON	ON	OFF	OFF	OFF	OFF	OFF
Preset Program 7	ON	OFF			ON	OFF	OFF	OFF	OFF	ON	ON
Preset Program 8	ON	OFF			ON	OFF	OFF	OFF	ON	OFF	ON

Manual static color settings are achieved when dipswitch 7 is in the “off” position.

RED:

Dipswitch 1 & 2 off, the red value is 0

Dipswitch 1 is on and dipswitch 2 is off, the red value is 60

Dipswitch 1 is off and dipswitch 2 is on, the red value is 125

Dipswitch 1 is on and dipswitch 2 is on, the red value is 255

GREEN:

Dipswitch 3 & 4 off, the green value is 0

Dipswitch 3 is on and dipswitch 4 is off, the green value is 60

Dipswitch 3 is off and dipswitch 4 is on, the green value is 125

Dipswitch 3 is on and dipswitch 4 is on, the green value is 255

BLUE:

Dipswitch 5 & 6 is off, the blue value is 0

Dipswitch 5 is on and dipswitch 6 is off, the blue value is 60

Dipswitch 5 is off and dipswitch 6 is on, the blue value is 125

Dipswitch 5 is on and dipswitch 6 is on, the blue value is 255

When dipswitch 7 is on you can run the internal program

Dipswitches 1 & 7 on accesses internal program 1
 Dipswitches 2 & 7 on accesses internal program 2
 Dipswitches 3 & 7 on accesses internal program 3
 Dipswitches 4 & 7 on accesses internal program 4
 Dipswitches 5 & 7 on accesses internal program 5
 Dipswitch 6 & 7 on accesses internal program 6
 Dipswitch 1,2 & 7 on accesses internal program 7
 Dipswitch 1,3 & 7 on accesses internal program 8

The chart below details the different speed settings available for the internal programs when the fixture is running in manual mode.

Dipswitch # 10 is OFF, Dipswitch #11 is ON, and Dipswitch #7 is ON, the fixture will run the internal programs;

The program speed can be adjusted by following the chart below for Dipswitch #8 and Dipswitch #9

Speed	Dipswitch #8	Dipswitch #9
Slow (1.1s between scenes)	OFF	OFF
Medium (0.6s between scenes)	ON	OFF
Fast (0.2s between scenes)	OFF	ON
Very fast (0.1s between scenes)	ON	ON

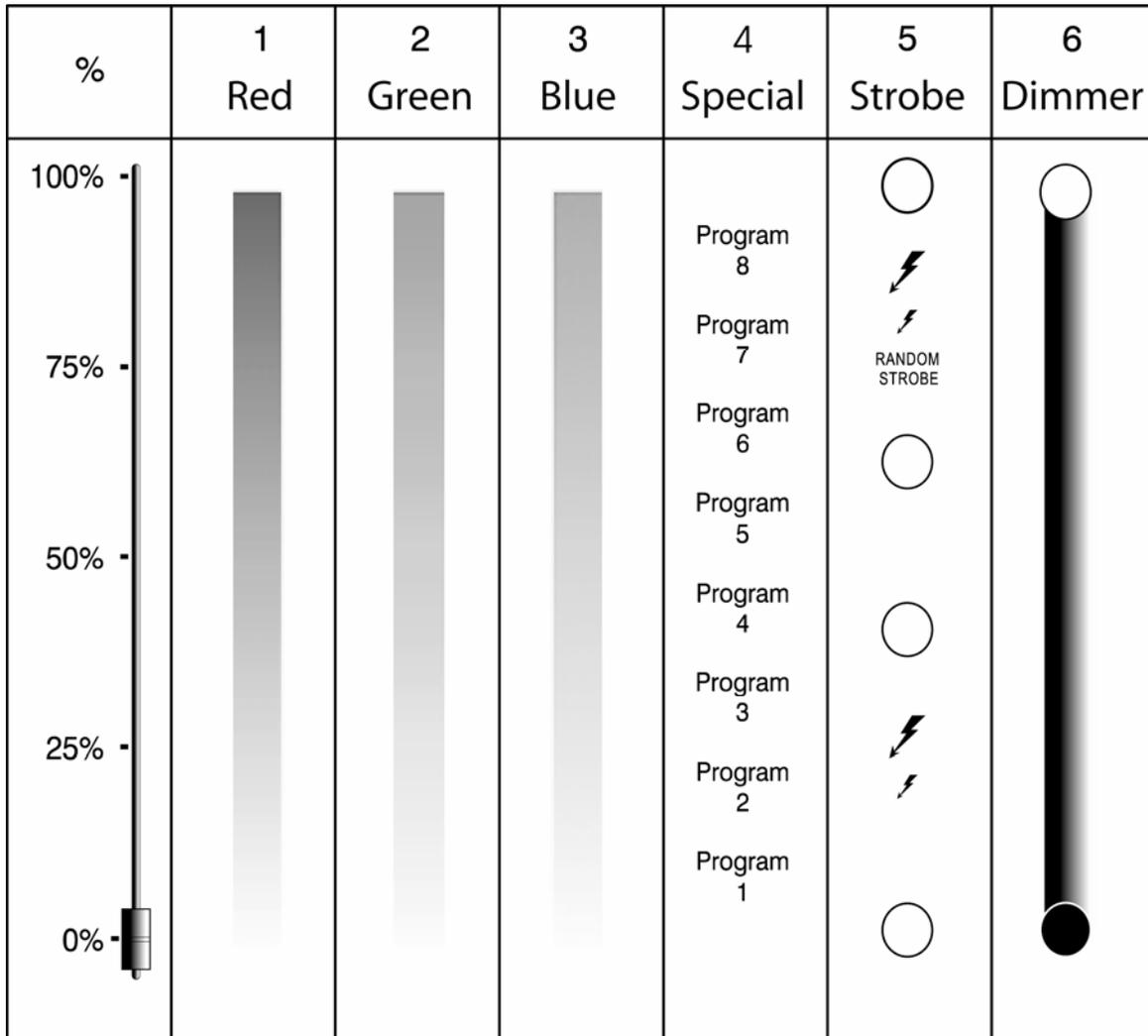
DMX Operation Notes:

The fixture will function in DMX mode whenever the unit is receiving a DMX signal. Please note that this will override all manual settings regardless of dipswitch positions.

This unit will keep and retain the last DMX command in the event of DMX signal failure. To reset the fixture you must turn the power off.

9. DMX CHANNEL TRAITS

6 Channel Mode: This chart details a simple layout of the DMX channel assignment in 6-channel mode. The chart traits will vary slightly for 12 channel and 15-channel operation, as those modes use more RGB channels for more precise control.



CHANNEL 1:Red

CHANNEL 2:Green

CHANNEL 3:Blue

CHANNEL 4: Internal programs:

CHANNEL 5:Strobe

CHANNEL 6: Dimming (0%-100%)

DMX channel's functions and their values (6 Channel Mode):**Channel 1 - Red:**

0-255	Red (0-Black, 255-100% Red)
-------	-----------------------------

Channel 2 - Green:

0-255	Green (0-Black, 255- 100% Green)
-------	----------------------------------

Channel 3 - Blue:

221-255	Blue (0-Black, 255- 100% Blue)
---------	--------------------------------

Channel 4 - Internal programs:

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

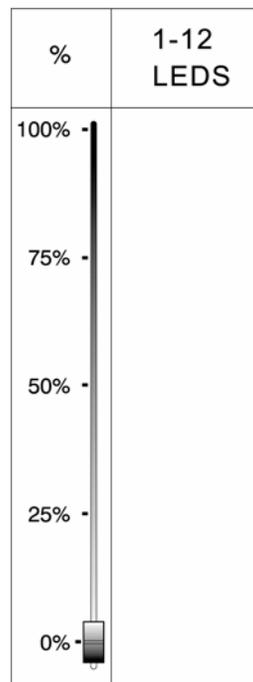
Channel 5 - Strobe:

0	No function
1~95	Strobe effect slow to fast
96-127	No function
128-159	Pulse effect in sequences
160-191	No function
192-223	Random strobe effect slow to fast
224-255	No function

<u>Channel 6 - General dimming / Program Speed Control</u>	
<i>This channel has two functions depending on the operating mode. When running the built-in programs this channel will control the program speed.</i>	
0-255	Dimming (0%-100%) ~ Normal Operation
0-255	Speed (min to max) ~ When running built-in programs on channel 4

12 Channel Mode: This chart details a simple layout of the DMX channel assignment in 12-channel mode. In this mode all channels are used to control the various RGB LEDs.

Channel mode 12:



DMX channel's functions and their values (12 Channel Mode):	
<u>Channel 1 - Red:</u>	
0-255	Red (0-Black, 255-100% Red)
<u>Channel 2 - Green:</u>	
0-255	Green (0-Black, 255- 100% Green)

Channel 3 - Blue:

221-255	Blue (0-Black, 255- 100% Blue)

Channel 4 - Red:

0-255	Red (0-Black, 255-100% Red)

Channel 5 - Green:

0-255	Green (0-Black, 255- 100% Green)

Channel 6 - Blue:

221-255	Blue (0-Black, 255- 100% Blue)

Channel 7 - Red:

0-255	Red (0-Black, 255-100% Red)

Channel 8 - Green:

0-255	Green (0-Black, 255- 100% Green)

Channel 9 - Blue:

221-255	Blue (0-Black, 255- 100% Blue)

Channel 10 - Red:

0-255	Red (0-Black, 255-100% Red)

Channel 11 - Green:

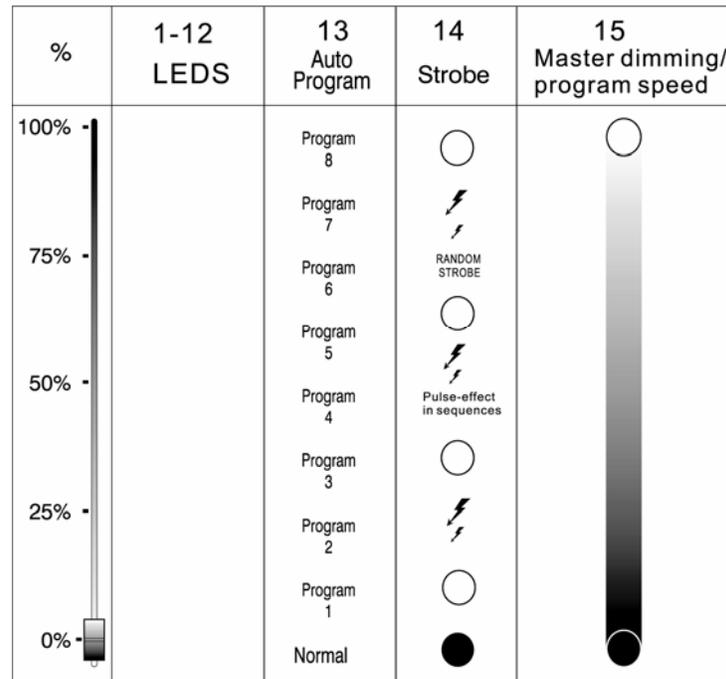
0-255	Green (0-Black, 255- 100% Green)

Channel 12 - Blue:

221-255	Blue (0-Black, 255- 100% Blue)

15 Channel Mode: This chart details a simple layout of the DMX channel assignment in 15-channel mode. In this mode channels 1~12 are used to control the various RGB LEDs and channels 13~15 will control special features.

Channel mode15:



DMX channel’s functions and their values (15 Channel Mode):

Channel 1 - Red:

0-255 Red (0-Black, 255-100% Red)

Channel 2 - Green:

0-255 Green (0-Black, 255- 100% Green)

Channel 3 - Blue:

221-255 Blue (0-Black, 255- 100% Blue)

Channel 4 - Red:

0-255 Red (0-Black, 255-100% Red)

<u>Channel 5 - Green:</u>	
0-255	Green (0-Black, 255- 100% Green)
<u>Channel 6 - Blue:</u>	
221-255	Blue (0-Black, 255- 100% Blue)
<u>Channel 7 - Red:</u>	
0-255	Red (0-Black, 255-100% Red)
<u>Channel 8 - Green:</u>	
0-255	Green (0-Black, 255- 100% Green)
<u>Channel 9 - Blue:</u>	
221-255	Blue (0-Black, 255- 100% Blue)
<u>Channel 10 - Red:</u>	
0-255	Red (0-Black, 255-100% Red)
<u>Channel 11 - Green:</u>	
0-255	Green (0-Black, 255- 100% Green)
<u>Channel 12 - Blue:</u>	
221-255	Blue (0-Black, 255- 100% Blue)
<u>Channel 13 - Internal programs:</u>	
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

Channel 14 - Strobe:

0	No function
1~95	Strobe effect slow to fast
96-127	No function
128-159	Pulse effect in sequences
160-191	No function
192-223	Random strobe effect slow to fast
224-255	No function

Channel 15 - General dimming / Program Speed Control

This channel has two functions depending on the operating mode. When running the built-in programs this channel will control the program speed.

0-255	Dimming (0%-100%) ~ Normal Operation
0-255	Speed (min to max) ~ When running built-in programs on channel 4

DMX Address Quick Reference Chart

DIP SWITCHES					Dip Switch Position																
DMX DIP Switch Settings X = OFF O = ON					#9	X	X	X	X	X	X	X	X	O	O	O	O	O	O	O	O
#8					X	X	X	X	O	O	O	X	X	X	X	O	O	O	O		
#7					X	X	O	O	X	X	O	O	X	X	O	O	X	X	O	O	
#6					X	O	X	O	X	O	X	O	X	O	X	O	X	O	X	O	
#1	#2	#3	#4	#5																	
X	X	X	X	X	32	64	96	128	160	192	224	256	288	320	352	384	416	448	480		
O	X	X	X	X	1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481	
X	O	X	X	X	2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482	
O	O	X	X	X	3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483	
X	X	O	X	X	4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484	
O	X	O	X	X	5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485	
X	O	O	X	X	6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486	
O	O	O	X	X	7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487	
X	X	X	O	X	8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488	
O	X	X	O	X	9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489	
X	O	X	O	X	10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490	
O	O	X	O	X	11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491	
X	X	O	O	X	12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492	
O	X	O	O	X	13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493	
X	O	O	O	X	14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494	
O	O	O	O	X	15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495	
X	X	X	X	O	16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496	
O	X	X	X	O	17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497	
X	O	X	X	O	18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498	
O	O	X	X	O	19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499	
X	X	O	X	O	20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500	
O	X	O	X	O	21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501	
X	O	O	X	O	22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502	
O	O	O	X	O	23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503	
X	X	X	O	O	24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504	
O	X	X	O	O	25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505	
X	O	X	O	O	26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506	
O	O	X	O	O	27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507	
X	X	O	O	O	28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508	
O	X	O	O	O	29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509	
X	O	O	O	O	30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510	
O	O	O	O	O	31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511	

The center numbers of this chart (1-511) represent a DMX address. The "X"s and "O"s along the top and side of the chart represent dip switch position ("X" for off and "O" for on). Find your desired DMX address from the center chart. Identify the position for dip switches 1-5 from the chart on the left and dip switches 6-9 from the chart on the top. Adjust the dip switches on your fixture to match the position settings of the chart. For fixtures with 10 dip switches; dip switch 10 is reserved for special functions.

10. CLEANING AND MAINTENANCE

The consider the following point during normal service and 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. 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 the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.



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, 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.

11. 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

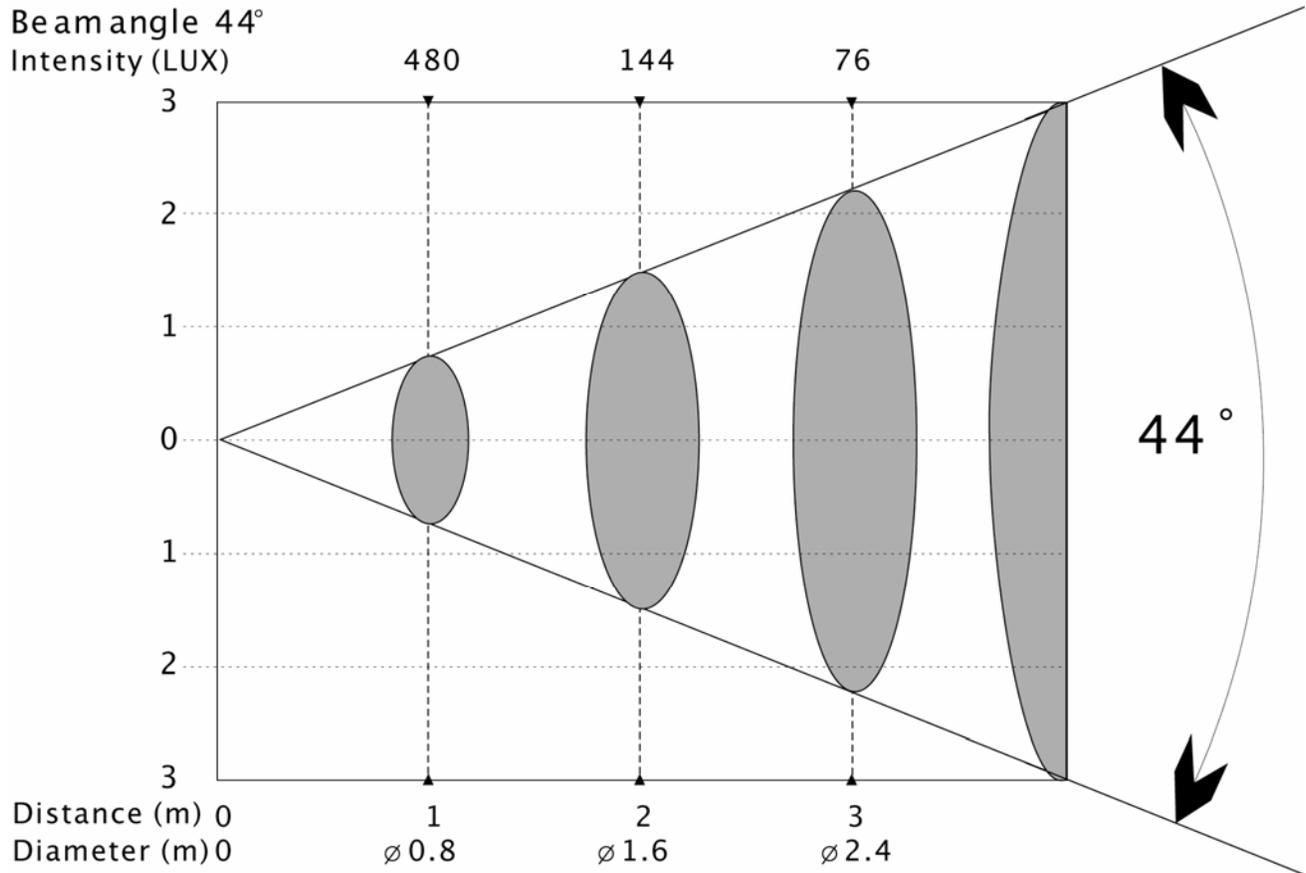
effect.

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.

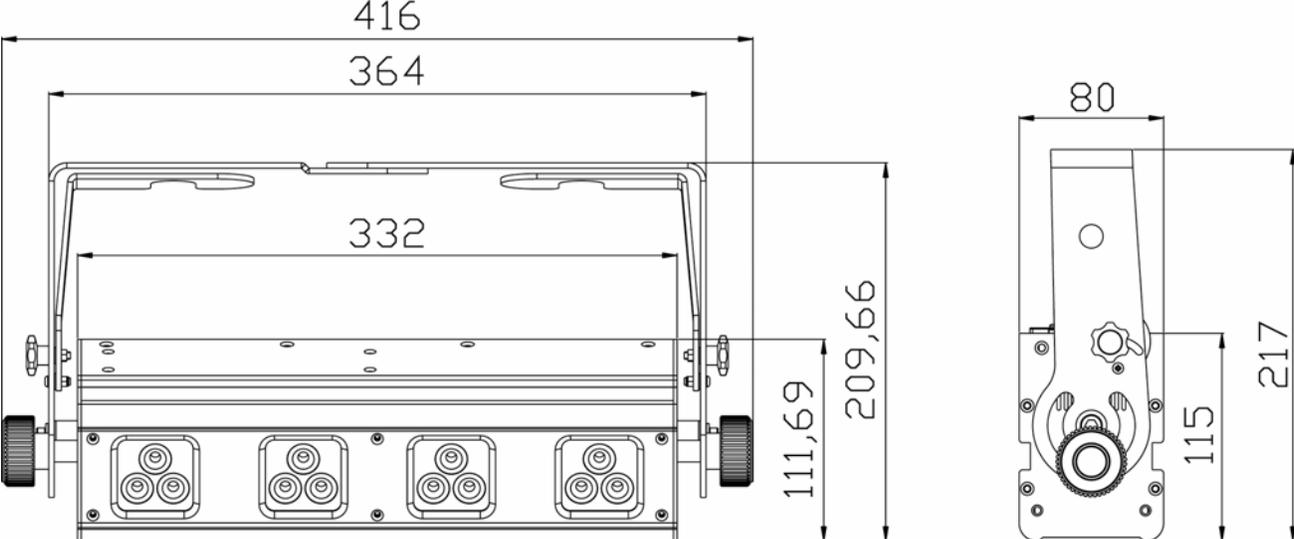
G. This warranty is the only written warranty applicable to Elation Professional® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

12. PHOTOMETRIC DATA



Distance	Diameter	A1	B1	B2	B3	B4	Average	Angle
1m	0.8m	480	368	370	340	304	372	44°
2m	1.6m	144	129	129	124	122	648	44°
3m	2.4m	76	68	74	72	69	72	44°

13. DIMENSIONAL DRAWINGS



15. TECHNICAL SPECIFICATIONS

<i>Power supply:</i>	90V~250V AC50Hz~60Hz
<i>Power consumption:</i>	MAX 30W
<i>LED Configuration:</i>	12 1Watt Units (3 x Red, 3x Green 3 x Blue)
<i>Packing dimensions:</i>	47x26.5x19cm (56x48x42cm ~ 4pc system)
<i>Weight:</i>	2.1Kgs / 4.62 Lbs (9.2Kgs ~ 4pc system)
<i>DMX Channels:</i>	15, 12, or 6 Channel mode
<i>Drive:</i>	Standard DMX-512, 3 pole XLR; [+]= Pin 3 [-]= Pin 2 [Ground]= Pin 1.
<i>Color Mixing:</i>	RGB Color Additive Mixing
<i>Beam Angle:</i>	44°
<i>Fuse:</i>	GMA 220v~3A
<i>Dimmer:</i>	Continuous Dimming 0~100%
<i>Strobe:</i>	Electronic Strobe 0~18 Fps
<i>Lamp Life:</i>	100,000 Hours Rated Life

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
4295 Charter Street
Los Angeles, CA. 90058
323-582-3322 / 323-582-3108 fax
www.ElationLighting.com /Info@ElationLighting.com