

DLED Par Zoom

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1. GENERAL INFORMATION

INTRODUCTION: Congratulations, you have just purchased one of the most innovative and reliable LED fixtures on the market today! The DLED PAR ZOOM™ 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 DLED PAR ZOOM™ by Elation Professional®. Every DLED PAR ZOOM™ 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 Power Cable, 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) 832-9142

E-mail: support@elationlighting.com

Forum: www.ElationLighting.com/forum

Warning! To prevent the risk of fire and reduce the risk electrical shock, do not attempt to operate this fixture with the lens cover removed.

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 DLED PAR ZOOM™ 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. See page 12.
2. Never touch the fixture during normal operation.
3. Never look directly into the light source. You risk injury to your retina, which may induce blindness.
4. For safe operation, follow the Installation guide described in chapter six of this manual. Operating the DLED PAR ZOOM™ without suited safety aids such as safety cables or clamps can increase the risk of damage and/or personal injury.
5. Qualified and certified personnel should only perform installation.
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. Do not attempt to operate this fixture if the power cord has become damaged or frayed.
8. **Never open this fixture while in use.**
9. This device falls under protection-class I. Therefore it is essential that the device be grounded properly.
10. Qualified personnel should perform all electrical connections.
11. 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.

12. Always disconnect from main power before performing any type of service or any cleaning procedure.
13. Only handle the power cord by the plug. Never pull out the plug by tugging the wire portion of the cord.
14. This fixture is designed for use indoors only, use of this fixture outdoors will void the manufacturer's warranty.
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.

3. FEATURES

- Low power consumption
- Minimal heat emission
- Maintenance free operation
- Equipped with 36 3-Watt (10 x red, 16 x green, 10 x blue)
- Silent Operation, convection cooled, no fans
- 100,000 hours **rated** LED life
- Linear RGB Color Mixing, infinite color possibilities
- Built-In Electronic Zoom (13° ~ 55°)
- 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
- 7 built-in programs can be called up via DMX-controller
 - ~ 48 preprogrammed scenes per program
- Sound-controlled via built-in microphone
- 8 Channel DMX Control
- DMX-control via standard DMX-controller
- Upgradable firmware via Elation “E-Loader” Programming Device
- Electronic Switching Power Supply 100v~240v
- Flicker-free operation for television and film
- Durable Cast Aluminum Case Design
- 0%~100% Dimming (two dimming options; linear & standard)
- Optional Accessories:
 - Barn Door Assembly
 - Frost Filter

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.

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 0.5 meter (about 1.5ft). See page 11.

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.

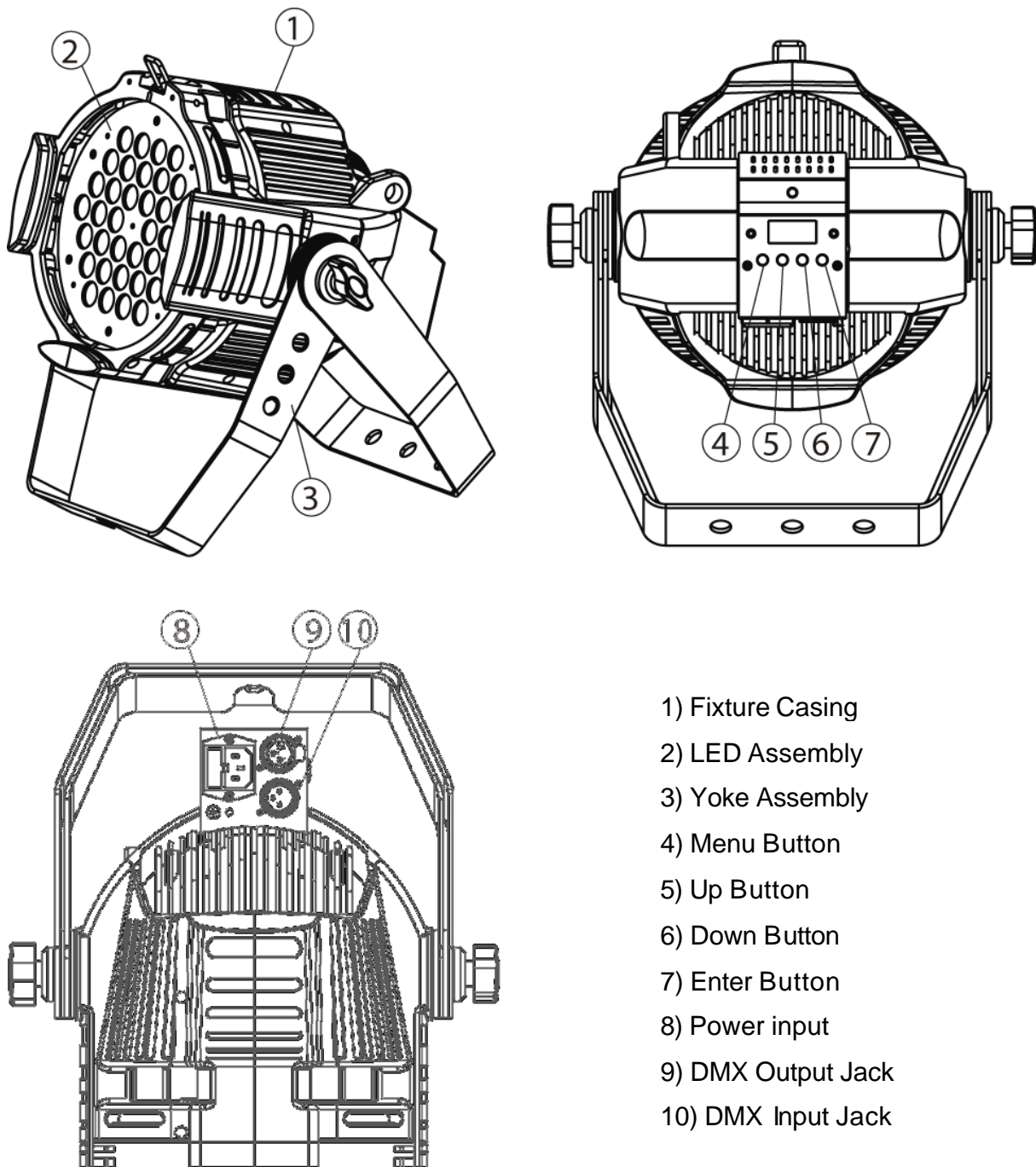
Do not attempt to operate this fixture until you have familiarized yourself with all of its functions.

Do not permit operation by persons not qualified for operating this type of architectural 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. Fixture Casing Assembly** – Durable cast aluminum casing designed to take the rigors of touring.

2. **LED Lens Assembly** – The lens assembly may be user replaced in the event repair is needed or a different beam angle is required.
3. **Yoke Assembly** – This yoke is designed to perform two functions; 1) When split it can be used as a floor stand. 2) Used to secure a mounting clamp for truss mounting.
4. **MENU Button** – This button is used to access the fixtures menu functions.
5. **Up Button** – The up button is used to toggle forward through the menu functions and settings.
6. **Down Button** – The down button is used to toggle backwards through the menu functions and settings.
7. **Enter Button** – The enter button is used to enter in to a certain menu function or to lock a menu setting in to memory.
8. **Main Power Input**– This power assembly provides main power to the unit and also houses the intergraded safety fuse. Be sure to always use an approved power rated IEC cable to feed power to the unit. In the event of fuse failure, always replace with the exact same fuse unless otherwise instructed to do so by an authorized Elation technician.
9. **DMX Out Jack** – 3-pin Male XLR connector. This lead is used to send an incoming DMX signal to the next fixture in the DMX chain. Always use a proper DMX cable for data transfer
10. **DMX In Jack** – 3-pin Female XLR connector. This lead is the main DMX input lead. Always use a proper DMX cable for data transfer

6. MOUNTING AND INSTALLATION

Cautions:

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

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

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

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.

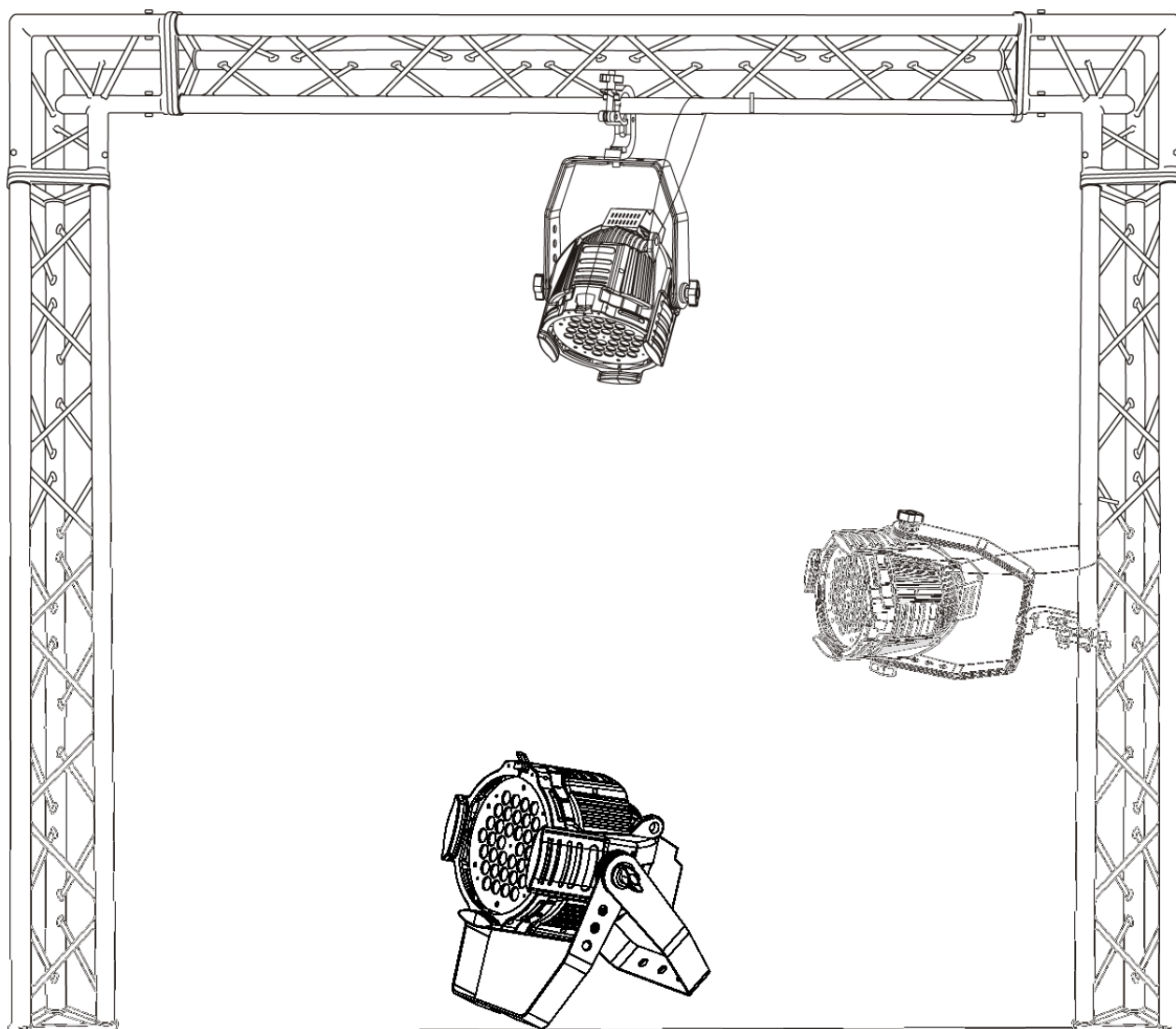


CAUTION!
Be sure a qualified electrician performs all electrical connections.

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

Mounting

The DLED PAR ZOOM™ is fully operational in any mounting position, hanging upside-down, side mounted, or set on a flat level surface, etc. Be sure this fixture is kept at least 0.5m (1.5 feet) 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.**

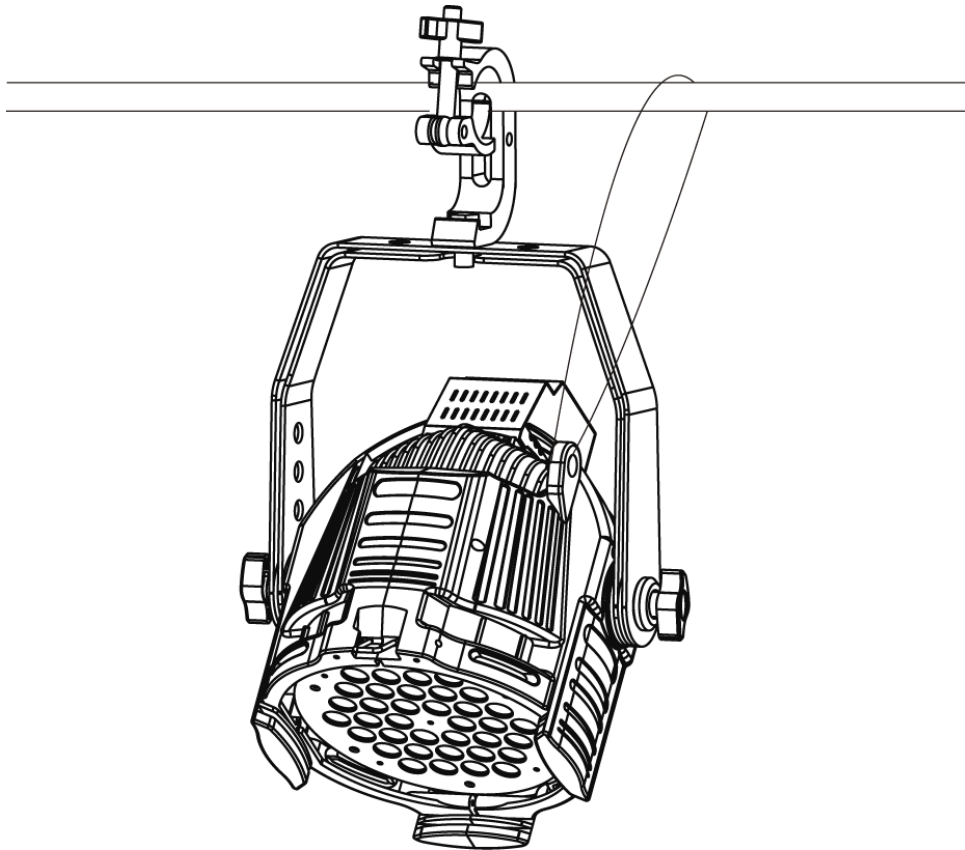


Clamp Mounting

The DLED PAR ZOOM™ provides a unique mounting bracket assembly that allows the unit to stand on a flat surface or to be hung on truss via a clamp in any safe position (see the illustration above). Regardless of the mounting option you choose please be sure to refer to

the safety guidelines in this manual to avoid damage to the unit and/or personal injury.

When mounting this fixture to truss be sure to secure an appropriately rated clamp to the hanging yoke using a M12 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 illustrations below.



Securing the DLED PAR ZOOM™



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

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 a 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 “OUT” leads 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 DLED PAR ZOOM™ can be controlled via DMX-512 protocol. The DLED PAR ZOOM™ is a fixture that operates with 8 DMX channels (see pages 28-31 for the different DMX traits). The DMX address is set electronically using the controls on the bottom of the fixture.

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 illustration 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 Output
3-Pin XLR SocketDMX Input
3-Pin XLR Socket

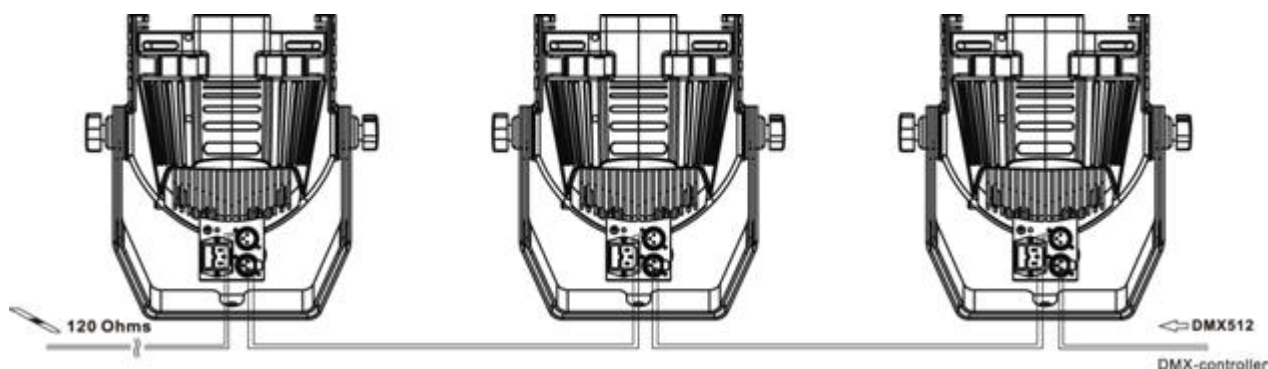
1: Ground
2: Data (-)
3: Data (+)

DMX Output
5-Pin XLR SocketDMX Input
5-Pin XLR Socket

1: Ground
2: Data (-)
3: Data (+)
4: Open
5: Open

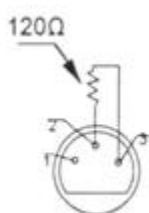
DMX-512 control connection

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

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 your 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 DLED PAR ZOOM™, which is a eight channel fixture, you should set the starting DMX address of the first unit to 1, the second unit to 9 (8 + 1), the third unit to 17 (8 + 9), and so on.

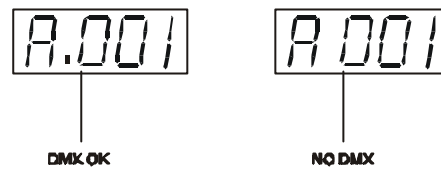
Note: During start-up the DLED PAR ZOOM™ will automatically detect whether a DMX data signal is being received or not. If a DMX data signal is being received, the display will show "A.XXX" (XXX representing the actual DMX address). If the fixture is not receiving a DMX signal the display will flash "A.XXX" (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 plug (cable with DMX signal from controller) may not be connected or is not inserted completely into the DMX input jack.
- The DMX controller is switched off or defective.
- The DMX cable from the controller merging with included IP Rated Cable adapter is not connected securely
- The DMX cable or connector is defective.
- A DMX terminator has been inserted into the last fixture in your DMX chain.

8. DISPLAY LED INDICATOR.

The DLED PAR ZOOM™ has a LED indicator on the display. This indicator is designed to give a quick visual indication of the fixtures' DMX status. The illustration below details the functionality of the LED indicators.



The LED indicator represents DMX signal:

- If the indicators is on, a clean DMX signal is present
- If the indicator is off, there is no DMX signal present

9. DISPLAY MENU

On-Board System Menu: The Design PAR Zoom™ 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 base of the fixture allows you to access the main menu and make all necessary adjustments to the **Design Par Zoom™**. During normal operation, tapping the “**MENU**” 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 display will briefly readout **OK** 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 **MENU** button.

MENU Button - To access the main menu locate the MENU 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, 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 MENU button.

0	MODE	ADDR	VALU	A001~XXX (AXXX)	DMX address setting
			SLAV	ON/OFF (SLAV)	Slave setting
			RDMX	ON/OFF	Change DMX address via external controller
		RUN	AUTO	ALON (AU-A)	Automatic Run in Stand Alone
				MAST (AU-M)	Automatic Run as Master
			SOUN	ALON (SO-A)	Sound-controlled Run in Stand Alone

				MAST (SO-M)	Sound-controlled Run as Master
		DISP	VALU	D-XX (DXXX) D-00	Display the DMX 512 value of each channel
			FLIP	ON/OFF	Reverse display
			D ON	ON/OFF	Shut off LED display
			LOCK	ON/OFF	Key lock (Hold the MENU button for 3 seconds to reactivate)
1	SET	MIC	M-XX		Mic sensitivity
		FAIL	OFF/HOLD/ AUTO/SOUN		No DMX Status
		REST			Reset
		DFSE	ON/OFF		Restore factory settings
		POHO	ON/OFF		Preserves manual setting after power has been turned off.
		VER	V-1.0~V-9.9		Software version
2	MANL	<RED GREN BLUE MACO PROG STRB DIMM ZOOM>	R XXX (000~255) G XXX (000~255) B XXX (000~255) M XXX (000~255) P XXX (000~255) S XXX (000~255) D XXX (000~255) Z XXX (000~255)		Test function of each channel
3	TIME	LIFE	0000~9999(hours)		Fixture running time
		CLFE	ON/OFF		Clear fixture time *code is "838"
4	EDIT	STEP	S-01 ~S-48		Steps of Program Run
		REC.	RE.XX		Auto Save Scene
		SC01 ~ SC48	RED GREN BLUE MACO PROG STRB DIMM ZOOM	R XXX (000~255) G XXX (000~255) B XXX (000~255) M XXX (000~255) P XXX (000~255) S XXX (000~255) D XXX (000~255) Z XXX (000~255)	Edit the channels of each scene
			FADE	XXX	Adjust fade time
			CEDT	ON/OFF	Edit program via controller

Default settings shaded.

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.

9.1 “MODE” - Function Mode:

9.1.1 <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 26 of this user manual.

“VALU” - DMX address

The function will display the current DMX address. . For proper DMX addressing see “DMX Addressing” on page 26 of this user manual.

“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 10/Page 26 of this manual “Remote DMX addressing.”

9.1.2 <RUN> - Internal Program Settings

This function allows the internal programs to run in either stand-alone or master/slave 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.

9.1.3 <DISP> - Menu Display Settings

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

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

“**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**” – This function allows you to lock all menu keys.

With this function you can activate the automatic keylock status. If this function is activated, the keys will be automatically locked in 15 seconds from the last press. In order to deactivate the keylock status, press the Mode/Esc-button for 3 seconds.

9.2 “SET” – Fixture Personality Settings:

These functions set specific running modes and operating parameters.

<MIC> Microphone Sensitivity

This function adjusts the sensitivity of the built-in microphone. The fixture uses the built-in microphone to trigger the built-in programs to sound.

<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 four fail safe modes are; 1) “OFF” which will blackout all light output, 2) “HOLD,” which will hold the last DMX command, 3) “AUTO,” which will put the fixture in sound-active mode, or 4) “SOUN” which is sound active.

<REST> Reset Function

This function resets the zoom motor and returns the motor to the “home” (starting) position. Use this function in the event the zoom motor was physically bumped out of place.

<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.

<POHO> - Power on to preserve the MANL settings

This function will preserve all the manual setting that are made in the “MANL” menu section. If this function is not activated all manual settings will be lost once the fixture is tuned off.

<VER> Software Version

This function will display the current firmware version.

9.3 “MANL” – Manual Fixture Settings:

This function allows the each of the eight 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.

9.4 “TIME” – Operating Hours

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

<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 non-destructive and will remain in the fixtures memory indefinitely. Use this time to track rentals or show durations.

<CLFE> Clear Fixture Run Time

This function resets the run time to zero. **The access code is “838.”**

9.5 “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 12/ Page 32.

10. DMX ADDRESSING

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

1. Toggle through the menu by pressing the Up and Down buttons until the display reads “Addr=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. This function may be turned on and off, and is “ON” be default. Follow the procedure listed below to access the RDMX functions:

Fixture Settings:

1. Access the main menu and use the UP or DOWN to get to the “MODE” menu, then press ENTER
2. Once in the “MODE” menu, tap the UP or Down to get to the “ADDR” menu, press ENTER.
3. Once in the “ADDR” menu tap the UP or Down to get to the “RDMX” function and press ENTER.
4. “RDMX” is the function that turns the RDMX function on and off. Press ENTER and be sure the function is turned on.
5. Press the UP button to display “ON” to activate this function, or “OFF” to deactivate this function.

6. Press ENTER to confirm.
7. Press MENU to return to the main menu.
8. Note: This function is active by default.

Controller Settings:

1. Set the DMX value of channel 1 to a value of 7.
2. Set the DMX value of channel 2 to a value of 7 or 8. When channel 2 is set to "7" you can adjust the starting address between 1 and 255. When set to "8" you can adjust the starting address between 256 and 511.
3. Use channel 3 to set your desired DMX starting address. **For example:** If you want to set the starting address to 57, set channel 1 to a value of "7," set channel 2 to a value of "7" and use channel 3 to set your address to 57 by selecting a channel value of 57. Example 2: If you want to set the starting address to 420, set channel 1 to a value of "7," channel 2 to "8" and channel 3 to "164" ($256+164=420$).
4. The above example assumes the fixture is addressed at 001, for any other address follow the above instruction for the actual starting 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.**

11. DMX TRAITS

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.

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.

DMX CHANNEL TRAITS

The chart below outlines the different DMX.

8 Channel mode:

%	1 Red	2 Green	3 Blue	4 Rainbow	5 Auto program	6 Strobe	7 Dimmer	8 Zoom
100%					Gradient effect			
75%					Program 7			
50%				Crossfading Colours	Program 6	RANDOM STROBE		
25%				Rainbow Colours	Program 5			
0%				No Function	Program 4	Pulse-effect in sequences		
					Program 3			
					Program 2			
					Program 1			
					No Function			

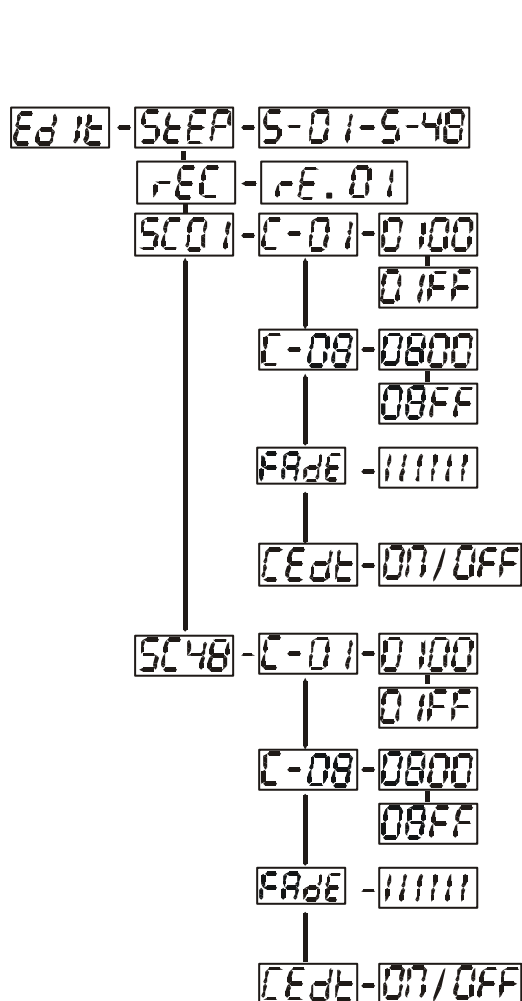
DMX channel functions and their values (8 DMX channels):		
Channel	Value	Function
1		<u>Red:</u>
	0-255	Red (0-Black, 255-100% Red)
2		<u>Green:</u>
	0-255	Green (0-Black, 255-100% Green)
3		<u>Blue:</u>
	0-255	Blue (0-Black, 255- 100% Blue)
4		<u>Color macros:</u>
	0	No function
	1-7	R02 Bastard Amber
	8-15	R04 Medium Amber
	16-23	R09 Pale Amber Gold
	24-31	R316 Gallo Gold
	32-39	R21 Golden Amber
	40-47	R26 Light Red
	48-55	R27 Medium Red
	56-63	R36 Medium Pink
	64-71	R339 Broadway Pink
	72-79	R344 Follies Pink
	80-87	R52 Light Lavender
	88-95	R54 Special Lavender
	96-103	R57 Lavender
	104-111	R59 Indigo
	112-119	R361 Hemsley Blue
	120-127	R362 Tipton Blue
	128-135	R64 Light Steel Blue
	136-143	R67 Light Sky Blue
	144-151	R68 Sky Blue
	152-159	R69 Brilliant Blue

	160-167	R76 Light Green Blue
	168-175	R79 Bright Blue
	176-183	R80 Primary Blue
	184-191	R382 Congo Blue
	192-199	R87 Pale Yellow Green
	200-207	R89 Moss Green
	208-215	R91 Primary Green
	216-223	L200 Double CTB
	224-231	L201 Full CTB
	232-239	L202 1/2 CTB
	240-247	L119 Dark Blue
	248-255	White
5		<u>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	Gradient effect
6		<u>Shutter, strobe:</u>
	0-31	All LEDs off
	32-63	LEDs Activated
	64-95	Strobe effect slow to fast
	96-127	LEDs Activated
	128-159	Pulse-effect in sequences
	160-191	LEDs Activated
	192-223	Random strobe effect slow to fast
	224-255	LEDs Activated

7		<u>General dimming/speed:</u>
	0-255	Dimming (0-Black, 255- 100%)
		Speed from slow to fast /when running internal programs
		Speed from slow to fast /when running gradient effect
8		<u>Zoom:</u>
	0-255	Continuous adjustment from far to near

12. 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.



Ed It - Main menu 4

1. Press [MENU] to enter the main menu (display flashing).
2. Press the [UP] or [DOWN] button to select "EDIT".

STEP - Define the number of steps in Run

With this function you can define the number of steps in the Program Run.

1. Select "STEP" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "S-XX", "X" stands for the total amount of steps you want to save, so you can call up to 48 scenes in "RUN". For example if the "XX" is 05, it means that "RUN" will run the first 5 scenes you saved in "EDIT".
3. Press [ENTER] to confirm or Press [MENU] to return to the main menu.

rEC -Auto Save

With this function you can automatic save the number of steps in the Program Run.

1. Select "REC" by pressing [UP] or [DOWN] button.

2. Press [ENTER], the display shows "RE.XX", "XX" stands for the number from 1 to 400.
3. Press [ENTER] to confirm or Press [MENU] to return to the main menu.

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 via Fixture Control Board.

The control will store a maximum of 48 scenes. These scenes are then used to create the programs. A program can store one or a maximum of 48 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:

SC01 - Editing the channels of the individual scenes

1. Select "SC01" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "SCXX", "X" stands for the scene no. to be edited.
3. Change the scene no. by pressing [UP] or [DOWN] button.
4. Press [ENTER], the display shows "C-X", "X" stands for the channel no. Such as "C-01", it means you are editing channel 1 of the selected scene.
5. Select the channel no. you would like to edit by pressing [UP] or [DOWN] button.
6. Press [ENTER] to enter editing for the selected channel, the fixture reacts to your settings. The display shows the DMX value of the edited channel. Such as "11XX", it stands for in the channel 11 of the editing scene, the DMX value is XX , XX is a hexadecimal number value "01-FF".
7. Adjust the desired DMX value by pressing [UP] or [DOWN] button.
8. Press [ENTER] in order to edit other channels of this scene.
9. Repeat steps 5-9 until you finish setting all the DMX values for all channels of this scene.
10. Once all the channels completed, the display will flash "TIME"

11. Press [ENTER] to edit the time needed, the display shows "TXXX", "XXX" stands for the time needed to run the current scene, value "001-999". E.g., "002" means you need 0.4ms (002*0.2ms) to run the current scene. Adjust the desired time by pressing [UP] or [DOWN] button.
12. Press [ENTER] to save the settings for the scene you are editing, the display will change to the next scene automatically.
13. Repeat steps 3-14 to edit and other scenes, you can edit and save a maximum of 48 scenes.
14. Press [MENU] to exit. The number of steps can be defined under "STEP" and the scenes can be called up under "RUN"

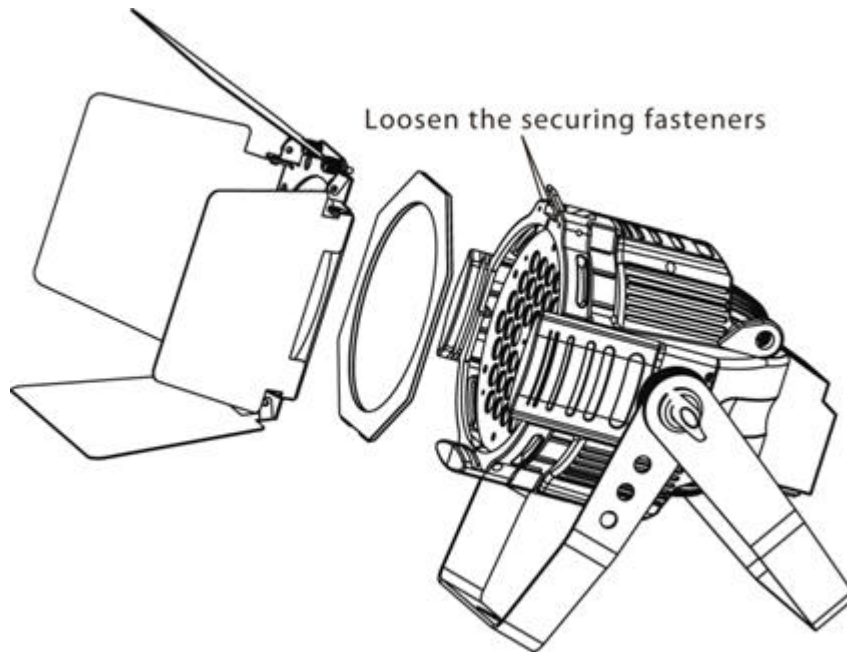
Step 1B – Building Scenes from an External DMX Controller

The fixture includes a simple built-in DMX recorder. This recorder allows you to build a scene using your own DMX console. That scene can then be sent to the fixture and be stored inside one of the fixture's 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:

1. Select "SC01" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "SC01".
3. Press [ENTER], the display shows "C-01".
4. Select "CNIN" by pressing [UP] or [DOWN] button.
5. Press [ENTER], the display shows "OFF".
6. Press [UP] or [DOWN] button .the display shows "ON".
7. Press [ENTER], the display shows "SC02". You successfully downloaded the first scene.
8. Adjust the Step-time as described above under point 12.
9. Call up the second scene in your controller now.
10. Repeat steps 5-11 until all desired scenes are downloaded.
11. Press [MENU] to exit. The number of steps can be defined under "STEP" and the scenes can be called up under "RUN".

13. BARN DOOR / FILTER INSTALLATION

The DLED PAR ZOOM can be fitted with a barn door and gel frame for a frost filter. The instructions listed below will detail the procedure for installing both options.



1. To install the gel frame holder only, simply rotate the retaining clip up and insert the gel frame, then rotate the retaining clip down again to secure the gel frame in place.
2. To install the barn door assembly, loosen the two 4MM screws on the lens cover, then attached the barn door assembly and tighten the screws.
3. When installing both the barn door and gel frame together, loosen the two 4MM screws, then insert the gel frame followed by the barn door assembly and then tighten the holding screws.

14. CLEANING AND MAINTENANCE

Consider the following points 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 fixture , please refer all other service issues to an authorized Elation service technician.

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

15. 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.

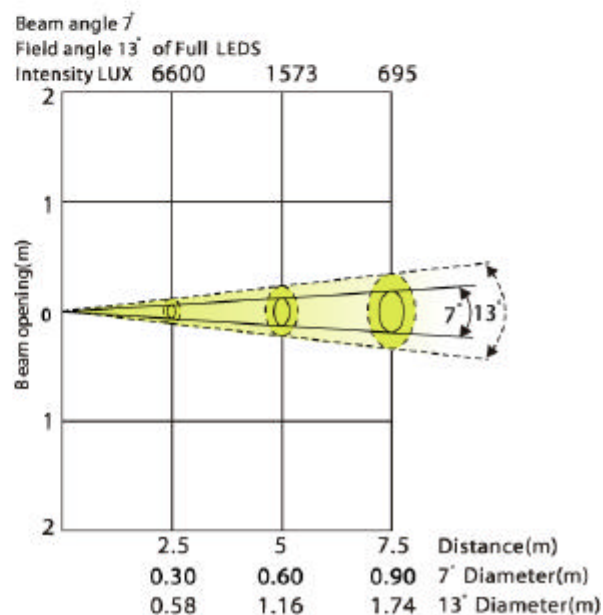
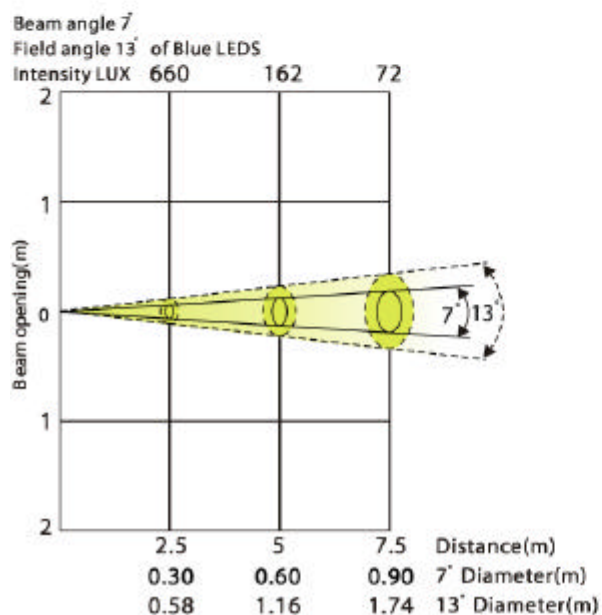
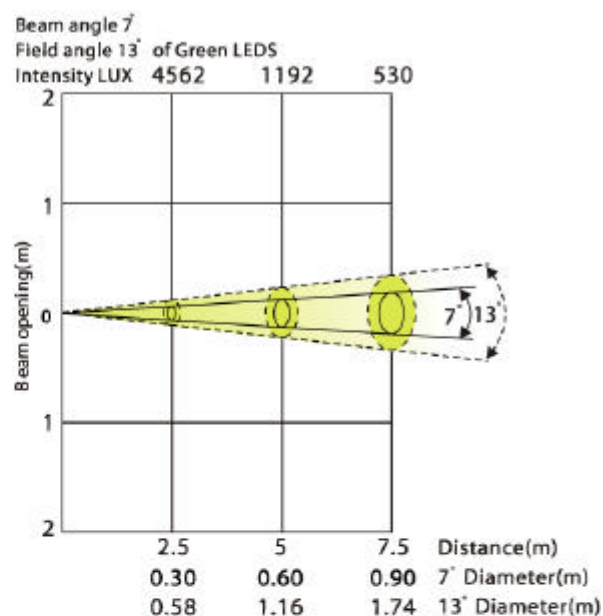
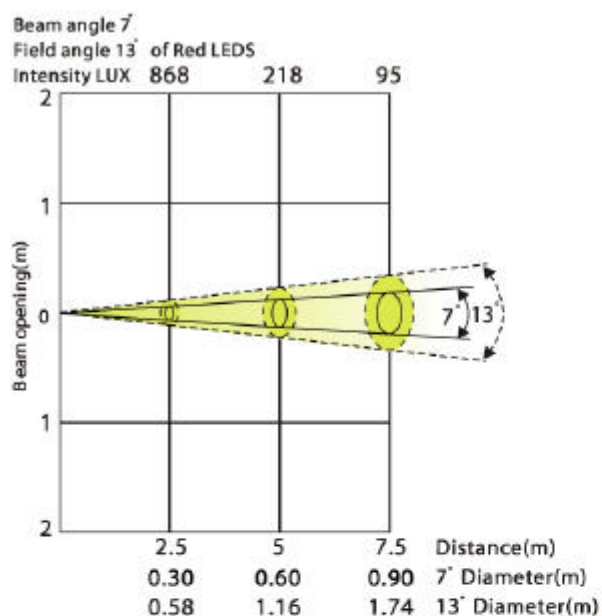
E. Elation Professional® reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

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.

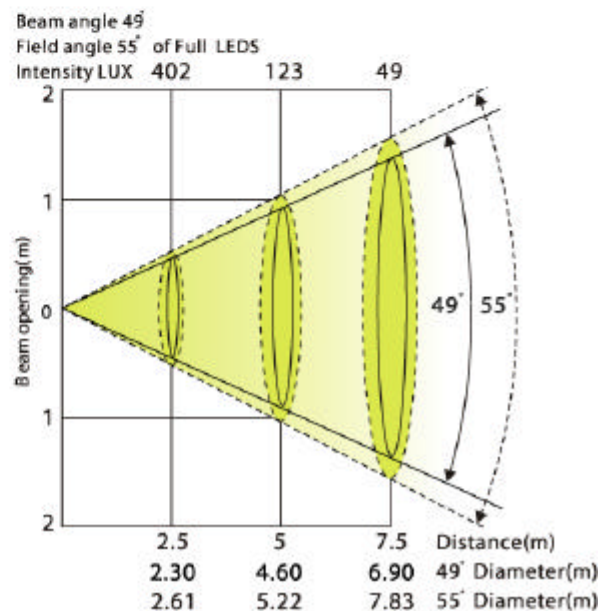
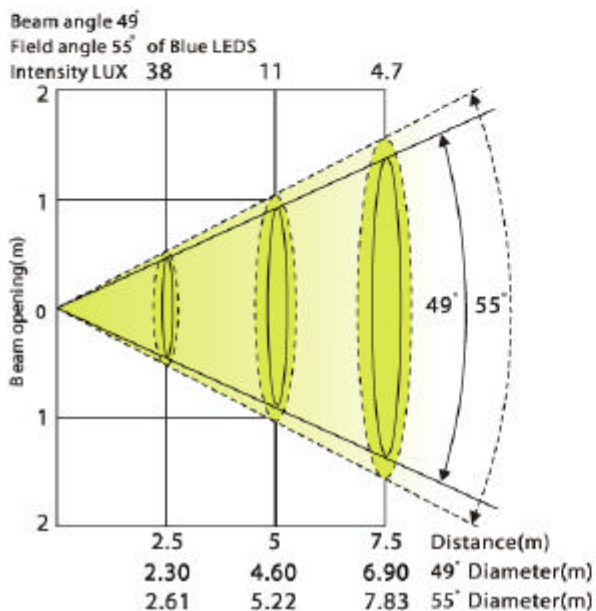
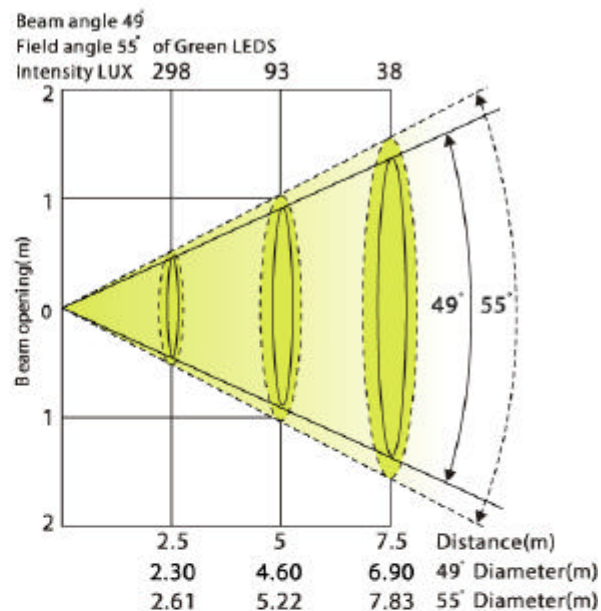
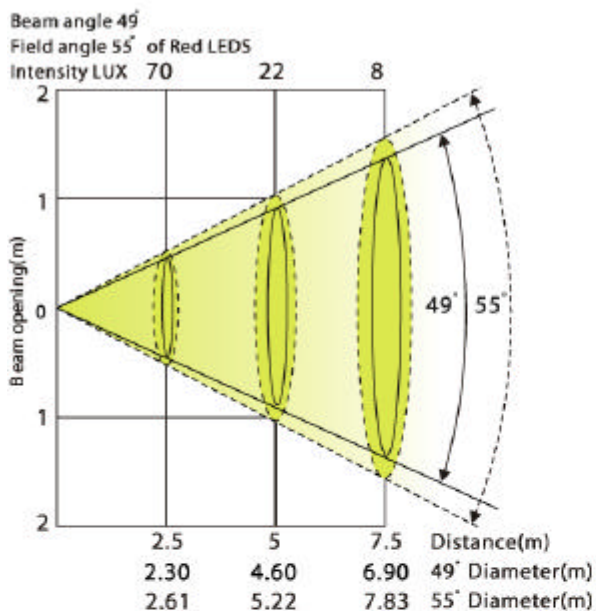
G. This warranty is the only written warranty applicable to Elation Professional® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

16. PHOTOMETRIC DATA

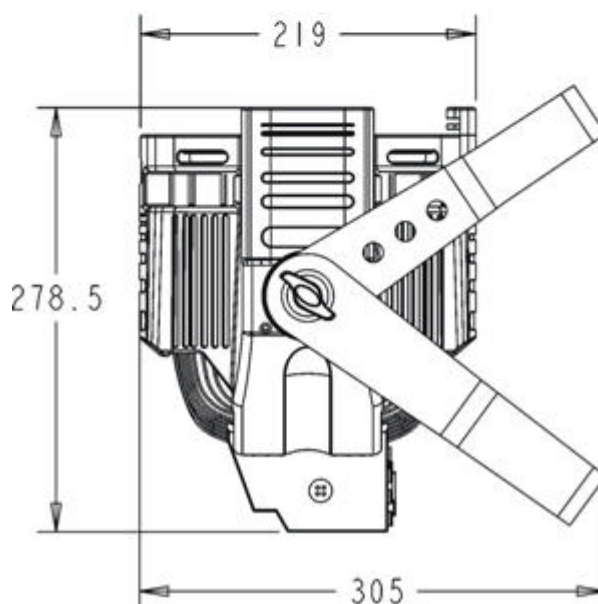
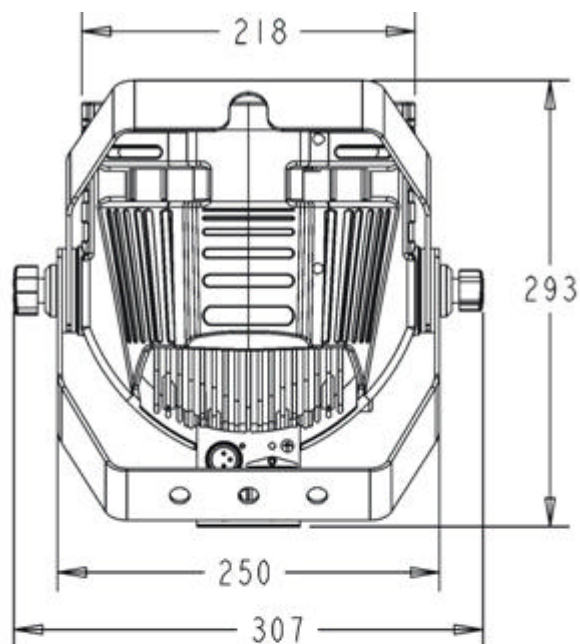
Minimum Zoom Point



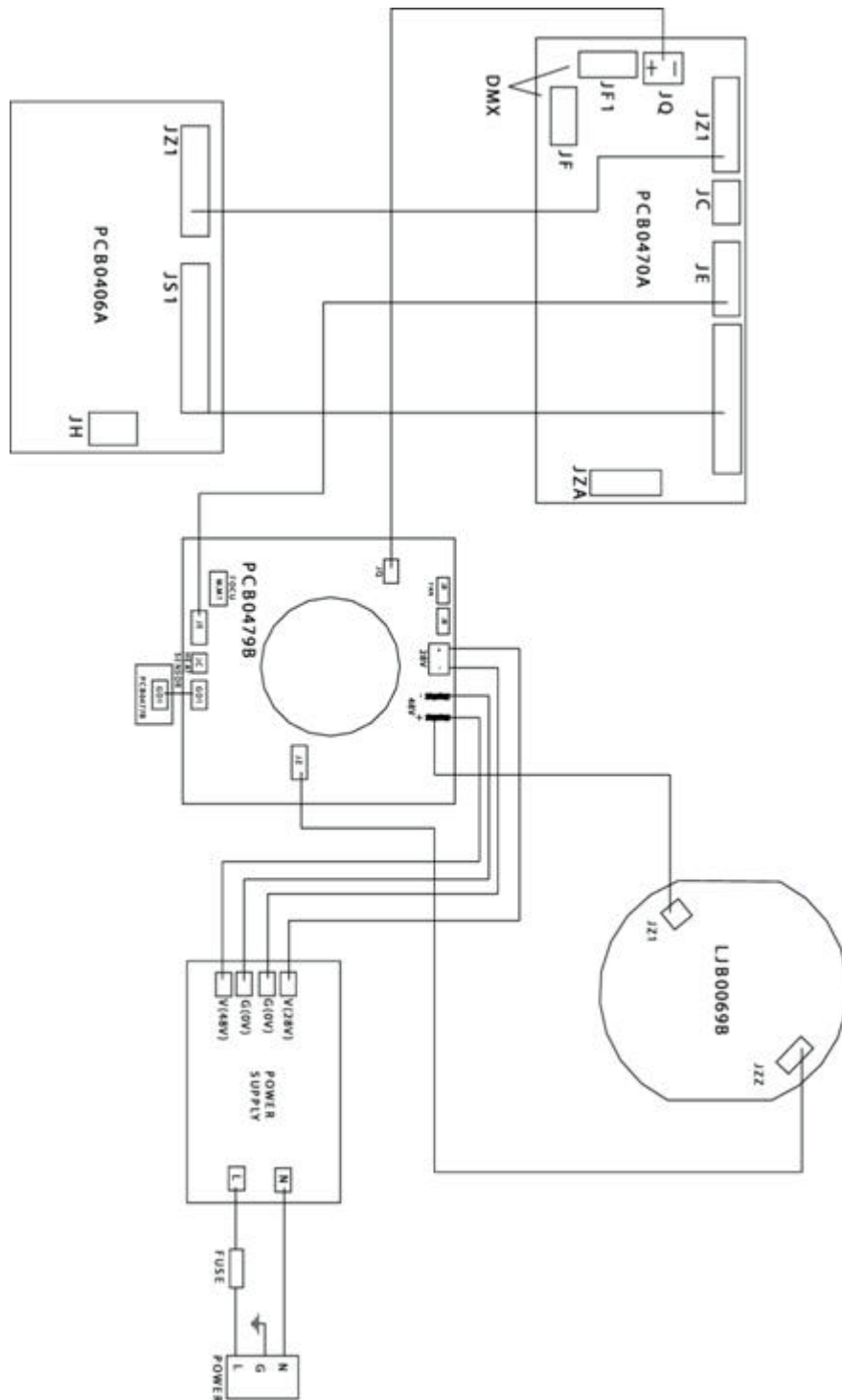
Maximum Zoom Point



17. DIMENSIONAL DRAWINGS



18. CIRCUIT SCHEMATIC



19. TECHNICAL SPECIFICATIONS

<i>Power supply:</i>	<i>100v~240v / 50Hz~60Hz AC</i>
<i>Power consumption:</i>	<i>Maximum 120w</i>
<i>IP Grade:</i>	<i>IP20</i>
<i>LED Configuration:</i>	<i>36 x 3 Watt (10 x Red, 16 x Green, 10 x Blue)</i>
<i>Weight:</i>	<i>7 Kgs / 15.4Lbs</i>
<i>DMX Channels:</i>	<i>8</i>
<i>DMX Drive:</i>	<i>Standard DMX-512, 3 pole IP Rated Locking Connector; [+] = Pin 3 [-] = Pin 2 [Ground] = Pin 1.</i>
<i>Color Mixing:</i>	<i>RGB Color Additive Mixing</i>
<i>Beam Angle:</i>	<i>Variable 13° ~ 55°</i>
<i>Fuse:</i>	<i>GMA 220v~3.15A</i>
<i>Dimmer:</i>	<i>Continuous Dimming 0~100%</i>
<i>Strobe:</i>	<i>Electronic Strobe 0~18 Fps</i>
<i>Lamp Life:</i>	<i>100,000 Hours Rated Life</i>
<i>Dimensions:</i>	<i>(79 x 76.5 x 60) mm 31" x 30" x 23.6"</i>

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

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