

# FOCUS SPOT 250

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**INTRODUCTION:** Congratulations, you have just purchased one of the most innovative and reliable lighting fixtures on the market today! The Focus Spot 250™, 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 Focus Spot 250™ by Elation Professional®. Every Focus Spot 250™ 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](http://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

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E-mail: [support@elationlighting.com](mailto:support@elationlighting.com)

Forum: [www.ElationLighting.com/forum/](http://www.ElationLighting.com/forum/)

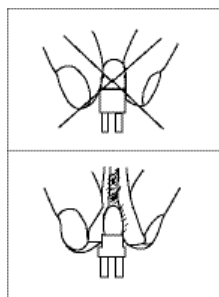
**Warning!** To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

**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 Focus Spot 250™ 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 customers expense. You may obtain a R.A. number by contacting customer support at (323) 582-3322.



**DISCHARGE LAMP WARNING:** This fixture is fitted with a discharge lamp, which is highly susceptible to damage if improperly handled. Never touch the lamp with your bare hands, as the oil from your hands will shorten lamp life. Also, never move the fixture until the lamps have had ample time to cool. Remember, lamps are not covered under warranty conditions.

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

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

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

To achieve the intensity associated with discharge lamps, these lamps use a gas sealed in a high-pressure environment to emit a brilliant output. Due to the high pressure involved with

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

***Never open this fixture while in use!***

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

## Safety Instructions



The Focus Spot 250™ 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 **FOCUS SPOT 250™** from the power outlet before performing any service related issues.
4. Lamp Replacement; Allow at least 30 minutes after disconnecting main power before you open the **FOCUS SPOT 250™**. To prevent personal injury, never touch the lamp if you are not absolutely sure it has cooled.
5. Never look directly into the lamp beam. You risk injury to your retina, which may induce blindness.
6. Be sure to track and record the lamp running time. The lamp should be changed at the end of the specified lamp life, regardless of lamp output. You may also have to change the lamp if it shows any deformations or damage. The same is with all glass components, color filters, lenses and mirrors.
7. For safe operation, follow the Installation guide described in chapter two of this manual. Operating the **FOCUS SPOT 250™** without suited safety aids such as safety cables or clamps can increase the risk of damage and/or personal injury.
8. Installation should only be performed by qualified and certified personal.
9. When mounting this fixture, use only the original rigging parts included with this fixture. Any structural modification will void the original manufactures warranty and

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

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

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



**Important:**

*Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.*

## Features

- Pan 630° / Tilt 265°
- 17° Beam Angle
- 8 Dichroic color plus spot, for a total of 9 colors
- 7 Rotating Gobos
- Strobe: 0~10Hz
- Electronic Focus via DMX
- Sound Active – Master/Slave Operation
- 4 Segment Digital LED
- High speed pan & tilt movements
- Reversible Display (Can be turned 180°)
- Bright MSD 250 Discharge Lamp
- Lamp switches ON/OFF locally
- Glass Dischoric Reflector for Even Lamp Dispersement
- Switchable Power Supply (Internal)
- 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

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

All electrical connections must be carried out by a qualified person.

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 the mains, when the device is not in use or before performing any service or cleaning procedure.

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

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually over time.

**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.

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

***Keep away from children and non-professionals.***

**GENERAL GUIDELINES**

This device is a lighting effect for professional use on stages, in discotheques, theatres, etc. This fixture is only allowed to be operated with the max alternating current which is stated in the technical specifications in the last page of this manual. This device was designed for indoor use only.

Consistent operation breaks may ensure that the device will serve you for a long time without defects.

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

While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. The minimum distance between light-output from the projector and the illuminated surface must be more than 0,5 meter.

Always fix the fixture with an appropriate safety cable if you use the clamp to hang up the fixture. When fixing the device on a raised-from-the-ground support, be sure to use no less than screws and nuts of M10 x 25 mm and insert them in the pre-arranged screw holes in the base of the fixture.

If you use the quick lock cam in hanging up the fixture, please make sure the 4 quick lock fasteners turned in the quick lock holes correctly.

Operate the device only after having familiarized with its functions. Do not permit operation



by persons not qualified for operating the device. Most damages are the result of unprofessional operation.

Please use the original packaging if the device is to be transported.

For safety reasons, please be aware that all modifications on the device are forbidden.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to short-circuit, burns, electric shock, lamp explosion, crash, etc.

## LAMP INSTALLATION INSTRUCTIONS

### a) *Installing or replacing the lamp*



#### CAUTION!

Only install the lamp with the device unplugged from the mains.



#### CAUTION!

The lamp has to be replaced when it is damaged or deformed.

Before replacing the lamp be sure the unit has ample time to cool, to avoid injury to yourself never touch the lamp when it is hot.

During the installation of halogen lamps do not touch the glass bulbs bare handed. Always use a cloth to handle the lamps during insertion and removal.

Do not install lamps with a higher wattage. They generate higher temperatures than which the device was designed for.

For the installation, you need one MSD250/2 GY9.5 lamp ;

#### **Procedure :**



1. Remove the two thumb screws labeled “A” and “B” on the rear housing of the head.
2. Gently pull the lamp/socket assembly to access the lamp.
3. Gently remove the old lamp by grasping it by the ceramic base.
4. Carefully insert the new lamp into the socket. Please remember there is only one way to insert the lamp. Once the lamp has be inserted into the socket, gently slide the socket

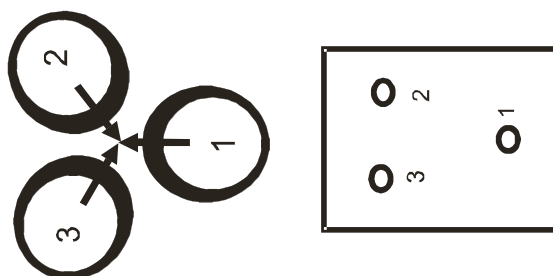
assembly back into place and fasten the two thumb screws.

### ***b) Lamp Optimization***

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

The **Focus Spot 250™** lamp holder is aligned at the factory. However, due to slight imperfections in all lamps, fine adjustments will improve light performance. Please follow the procedure below for proper lamp optimization:

1. Using either a DMX controller or the control panel on the unit, strike the lamp and focus the light on a flat surface (beam open, white, no gobo, no effects).
2. Center the hot-spot (the brightest part of the beam) using the 3 adjustment screws. Turn one screw at a time to drag the hot-spot diagonally across the projected image. If you cannot detect a hot-spot, adjust the lamp until the light is even.
3. To reduce a hot-spot, pull the lamp in by turning all three screws clockwise 1/4-turn at a time until the light is evenly distributed.
4. If the light is brighter around the edge than it is in the center, or if light output is low, the lamp is too far back in the reflector. "Push" the lamp out by turning each the adjustment screws ("**A, B, C**") counterclockwise 1/4-turn until the light is bright and evenly distributed.





**CAUTION!**

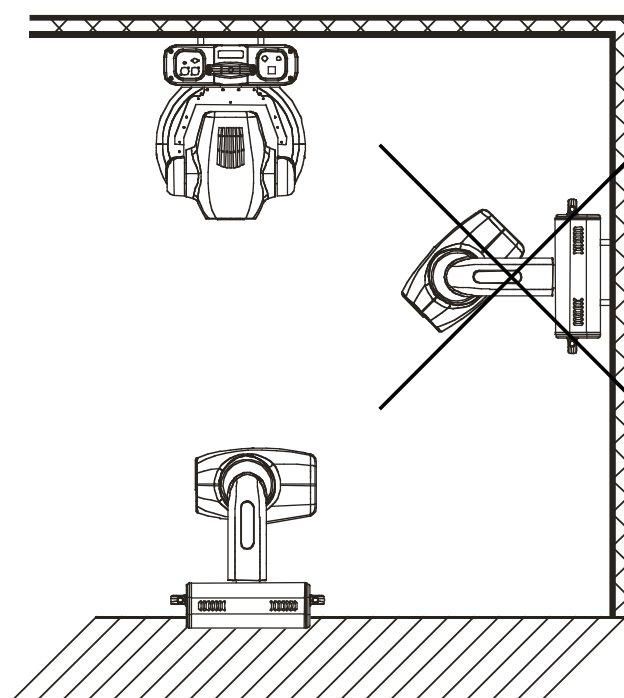
Do not operate this device with open cover

Please remember the lamp is not a hot-restrike type, you must wait approximately 10 minutes after having turned the lamp off before you can turn it back on again.

## Preparation and Installation

### Mounting

The FOCUS SPOT 250™ is fully operational in two different mounting positions, hanging upside-down from a ceiling or set on a flat level surface. To avoid internal damage to the unit, never mount the unit on its side as illustrated below. Be sure this fixture is kept at least 0.5m away from any flammable materials (decoration etc.). Install a safety cable that can hold at least 10 times the weight of the fixture. Never use the carrying handles for secondary attachment.

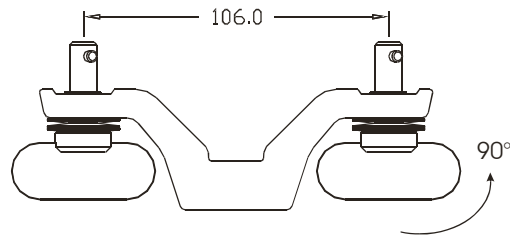


**Refer to regulations BGV C1 (formerly VBG 70) and DIN VDE 0711-217 for proper installation in Europe  
To ensure proper installation, only qualified staff should attempt installation.**

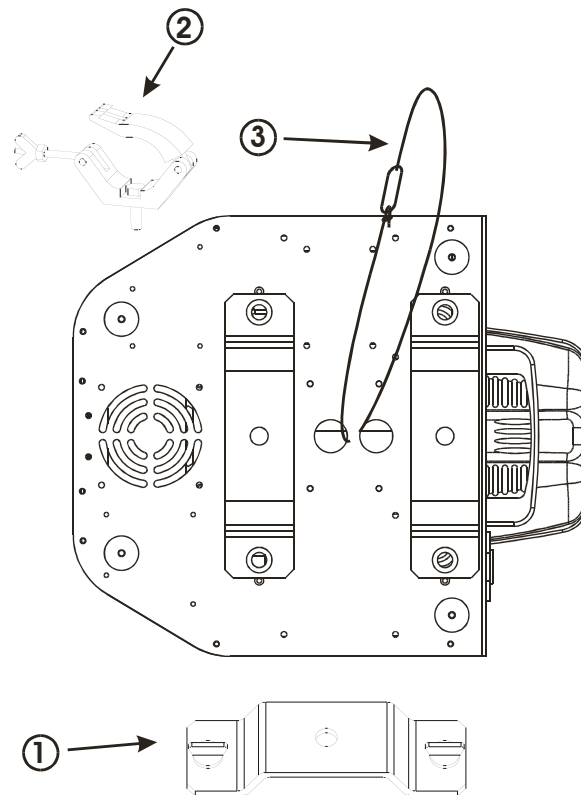
### Clamps

The FOCUS SPOT 250™ has been designed to hold multiple clamps to the bottom of the unit in several different orientations. Always use an appropriately rated clamp to mount this unit to truss. Refer to the printed instructions on the bottom of the fixture for proper clamp installation.

- a) **Cam lock System:** This system allows a quick and efficient means to secure a clamp to the unit. To attach a clamp to the unit, attach a clamp that is rated to handle the weight of the unit to your cam lock. After a clamp has been attached to the cam lock, attach the cam locks to the designated position on the bottom of your unit. Lock the cam locks into position by turning the wing nuts 90°.



- b) Be sure to always use two cam locks mounted to the bottom of unit to ensure safe truss mounting.



1. Quick-lock fastener
2. Clamp
3. Safety-rope

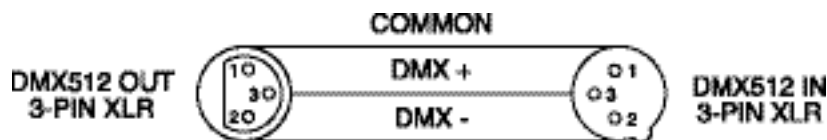
## Secure the FOCUS SPOT 250™

Regardless of the rigging option you choose for your **FOCUS SPOT 250™** 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 underside of the fixture, be sure to use this point and never secure a safety cable to a carrying handle.

## Connections

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

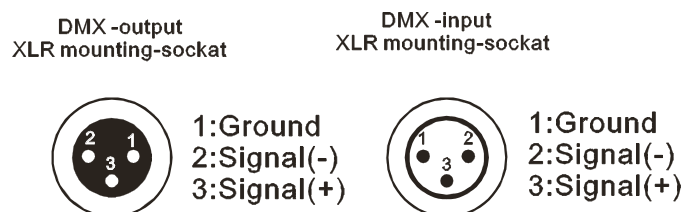
Your fixture and your DMX controller require a standard 3-pin XLR connector for data input and data output (Figure Below). If you are making your own cables, be sure to use standard two conductor shielded cable (This cable may be purchased at almost all professional sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and can not be split.



*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 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. You can chain multiple Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.



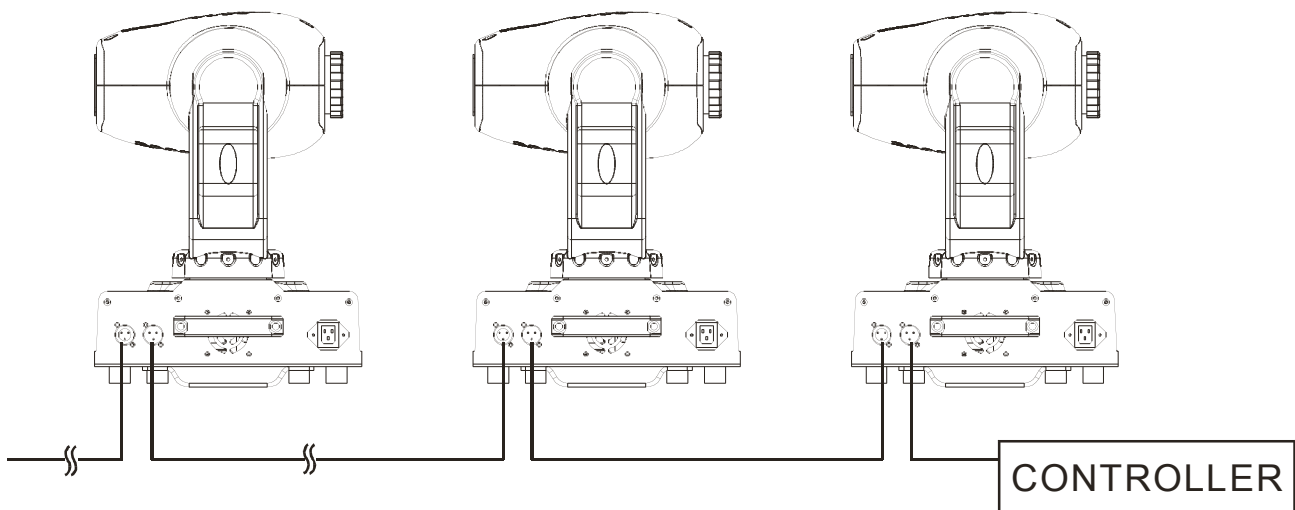


### **DMX-512 connection with DMX terminator**

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 90-120 ohm 1/4 watt resistor which 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 following chart details a proper cable conversion.

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

### ***Fixture DMX address;***

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals. 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 address is achieved by setting the correct number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures , or make different address for each fixture individually.

If you set the same address, all the units will start to “listen” to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

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

In the case of the Focus Spot 250™, which is a 11 channel fixture, you should set the starting address of the first unit to 1, the second unit to 12 (11 + 1), the third to 23 (12 + 11), and so on.

**Note:**

After switching on, the Focus Spot 250™ will automatically detect whether DMX 512 data is received or not. If the data is received, the display will show "**A.XXX**" (**XXX** representing the actual DMX address). If the fixture is not receiving DMX signal the display will flash "**A.XXX**" (**XXX** representing the actual DMX address). This situation can occur if:

- the 3 PIN XLR plug (cable with DMX signal from controller) is not connected with the input of the machine.
- the controller is switched off or defective, if the cable or connector is defective or the signal wires are swap in the input connector.

## Control Board

The control panel located on the top of the fixture allows you to access the main menu and make all necessary adjustments to the **Focus Spot 250™**. During normal operation, tapping the **“MODE”** 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 **EXIT** button.

Default settings shaded.

1	ADDR	A001~A511		Indicate the starting DMX address A001 also is the setting for slave
2	TEST	T-01~T-XX		Automatically test the function
3	AUDI	MSTR		Runs fixture as “master” for audio
		ALON		Runs fixture as “alone” for audio
4	LAMP	ON/OFF		Manually switches lamp “on” and “off”
5	RESE	ALL	ON/OFF	Reset all motors and returns fixture to home
		SCAN	ON/OFF	Reset only motors for pan/tilt
		COLR	ON/OFF	Reset only motors for colors
		GOBO	ON/OFF	Reset only motors for gobo and rotation
		SHTR	ON/OFF	Reset only motors for shutter and/or dimmer
6	TIME	OTHR	ON/OFF	Reset other motors
		LIFE	0000~9999	Displays the total fixture running time
		LAMP	0000~9999	Displays a lamps running time
		CLMP	ON/OFF	Clear lamp running time
7	RPAN	ON/OFF		Reverses the pan movements
8	RTLTL	ON/OFF		Reverses the tilt movements
9	FINE	ON/OFF		Switch between 16 bit/8 bit
10	DISP	VALU	D-XX D-00 (DXXX)	Display the DMX512 value of each channel
		D ON	ON/OFF	Display turn off after 2mins
		FLIP	ON/OFF	This function will reverse the display 180
11	SPEC	LAAU	ON/OFF	Automatic lamp start with power
		DLOF	ON/OFF	Switch lamp via DMX

		DLAY	D-XX D-15		Lamp on delay time
		SPOT	ON/OFF		Lamp optimization
		DFSE	ON/OFF		Resets all the fixture functions to default
		VER	V1.0~V9.9		Software version
12	EDIT	STEP	S-01 ~S-48		Set the amount of your program
		SCXX	C-01	01 XX(00~FFH)	
			:	:	
			C-30	30 XX(00~FFH)	
			TIME	I - XX(01~FFH)	
			CEDT	ON/OFF	
		RUN	ON/OFF		Program test

## Main Menu Functions

### 1. ADDRESS MENU -

AOO1 - A511 (Value) - This is where you set the fixtures DMX address.

### 2. TEST MENU -

T-01 - T-XX (Test) - Tests the functions of each channel. There are eleven DMX channels, but only channels 1,2,3,4, and 6 can be tested.

### 3. AUDI MENU -

*MAST (Master)* - Runs the unit as master in sound active mode.

*ALON (Alone)* - Runs the unit stand alone, sound active mode.

### 4. LAMP MENU -

ON/OFF Manually switches the lamp on and off.

### 5. RESE (RESET) MENU -

ALL - Resets all the motors in the unit.

SCAN - Resets the Pan and Tilt motors.

COLR (Color) - Resets the color motors.

GOBO - Resets the gobo motors.

SHTR - Resets the shutter motors.

OTHR - Reset all other motors

## **6. TIME MENU -**

LIFE - Displays the fixtures total running time.

LAMP - Displays the lamp running time.

CLMP - Clears the lamp running time.

## **7. RPAN MENU -**

This menu setting reverses the Pan movements.

## **8. RTLT MENU -**

This menu setting reverses the Tilt movements.

## **9. FINE MENU -**

This menu setting switch between 16 bit (fine) and 8 bit (coarse) modes. When this function is turned on the fixture will operate in 16 bit (fine) mode. When functioning in 16 bit mode the fixture will use 11 DMX channels, when the 16bit function is turned off the fixture will use nine DMX channels.

## **10. DISPLAY MENU -**

VALU (DMX-512 Value) - Display the DMX-512 value of each channel.

D ON (Display On) - Turns digital display on or off.

FLIP - "Flips" the digital display 180 degree

## **11. SPEC MENU –**

LAAU-Automatic lamp start with power

DLOF-Switch lamp via DMX controller

DLAY-Lamp delay on time

SPOT - This provides a spot beam for better lamp optimization.

DFSE (Default) - Resets the unit to default.

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VER (Version) - Displays the software version

## **12. EDIT MENU -**

RUN - This will run your own custom program.

STEP (S-01 - S-48) - These are the steps slots that you write your programs into. There are a total of 48 steps.

SCXX (SC01 - SC30) - These are the scenes that are stored in your program. There are a total of 30 scenes. C-01 - C-08 (Channel 1 - Channel 08) - The channels of each scene that can be edited.

TIME (Time) - Running time of the entire program.

CEDT - Edit program using an external controller.

**On-Board System Menu.** The FOCUS SPOT 250. comes with an easy to navigate system menu. This next section will detail the functions of each command in the system menu.

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

### 1. **Setting/Changing the DMX Address**

After applying power to the **CMY ZOOM 250™** the LED will display the fixture's current DMX address immediately after the reset sequence. If the fixture is not receiving a DMX signal the display will flash continuously.

Addr

To set or adjust a DMX address, please follow the procedure below:

1. Switch on the **CMY ZOOM 250™** and wait for the fixture reset process to finished.
2. Press the **Mode** button to access the main menu. Toggle through the menu by pressing the **Up** and **Down** buttons until the display shows **ADD 1**. Tap the enter button to make changes to the address, the current three digit address will immediately begin to flash.
3. While the current three-digit address is flashing, use the **Up** and **Down** buttons to select adjust the address. Lock your new address into the unit's memory by pressing the **Enter** button. After the new address has been successfully stored into the fixture's memory the LED will briefly readout **PASS**.

The DMX address is non-destructible and will remain in the fixture's memory even when the power has been switched off. Memory is backed-up and retained by an internal power source with a five year shelf life.

### 2. **TEST MAIN MENU**





TEST - This will test the functions of each channel.

1. Access the main menu.
2. Tap the UP button until “TEST” is displayed, press ENTER.
3. The display will show T-01. You can now press the up button and test the different channels. For example: If you press the up button until “T-03” is displayed, the unit will test the color channel, changing the color one by one and show the rainbow effect with different speeds. There are eight channels, but only channels 1,2,3,4, and 6 can be tested.
4. Press MODE/ENTER or EXIT to exit.

### 3. **AUDI MAIN MENU**

MSTR Define the unit as the master, in master/slave mode-

1. Access the main menu.
2. Tap the UP button until “AUDI” is displayed, press MODE/ENTER.
3. Tap the UP button until “MSTR” is displayed, press MODE/ENTER.
4. Press EXIT to return to the main menu.

ALON Define the unit as a stand alone unit -

1. Access the main menu.
2. Tap the UP button until “NODE” is displayed, press ENTER.
3. Tap the UP button until “ALON” is displayed, press MODE/ENTER to confirm.
4. Press EXIT to return to the main menu.

### 4. **LAMP MENU -**




LAMP – This menu function will manually turn the lamp on and off.

1. Access the main menu.
2. Tap the UP button until “LAMP” is displayed, press MODE/ENTER.

4. The display will show “ON/OFF”.
5. Press the UP button to select “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.

## 5. RESE MAIN MENU



**ALL** - When you activate the reset function, the fixture will begin to reset all motors.

1. Access the main menu.
2. Tap the UP button until “RESE” is displayed, press MODE/ENTER.
3. Tap the UP button until “ALL” is displayed, press MODE/ENTER.
4. The display will show “ON/OFF”. Press the UP button to select “ON” to reset the color motor.
5. Press MODE/ENTER to confirm
6. Press EXIT/DN to return to the main menu.

**SCAN** - When you activate this reset function, the fixture will only reset the Pan and Tilt mirror motor.

1. Access the main menu.
2. Tap the UP button until “RESE” is displayed, press MODE/ENTER.
3. Tap the UP button until “SCAN” is displayed, press MODE/ENTER to confirm.
4. The display will show “ON/OFF”. Press the UP button to select “ON” to reset the color motor. Press MODE/ENTER
5. Press EXIT/DN to return to the main menu.

**COLR** - When you activate this reset function, the fixture will only reset the color wheel motor.

1. Access the main menu.
2. Tap the UP button until “RESE” is displayed, press MODE/ENTER.

3. Tap the UP button until “COLR” is displayed, press MODE/ENTER to confirm.
4. The display will show “ON/OFF”. Press the UP button to select “ON” to reset the color motor. Press MODE/ENTER
5. Press EXIT/DN to return to the main menu.

**SHTR** - When you activate this reset function, the fixture will only reset the shutter/dimmer motor.

1. Access the main menu.
2. Tap the UP button until “RESE” is displayed, press MODE/ENTER.
3. Tap the UP button until “SHTR” is displayed, press MODE/ENTER to confirm.
4. The display will show “ON/OFF”. Press the UP button to select “ON” to restart the shutter/dimmer motor. Press MODE/ENTER to confirm.
5. Press EXIT/DN to return to the main menu.

**OTHR** - When you activate this reset function, the fixture will only reset any motor not specified in the other reset commands previously listed.

1. Access the main menu.
2. Tap the UP button until “RESE” is displayed, press MODE/ENTER.
3. Tap the UP button until “OTHR” is displayed, press MODE/ENTER to confirm.
4. The display will show “ON/OFF”. Press the UP button to select “ON” to reset the color motor. Press MODE/ENTER
5. Press EXIT/DN to return to the main menu.

## 6. **TIME MAIN MENU**

**TIME**

**LIFE** - With this function you can display the total running time of the unit.

1. Access the main menu.
2. Tap the UP button until “TIME” is displayed, press MODE/ENTER.
3. Tap the UP button until “LIFE” is displayed, press MODE/ENTER.
4. Press EXIT to return to the main menu.



**LAMP** - With this function you can display the running time of the lamp.

1. Access the main menu.
2. Tap the UP button until “TIME” is displayed, press MODE/ENTER.
3. Tap the UP button until “LAMP” is displayed, press MODE/ENTER.
4. Press EXIT to return to the main menu.



**CLMP** - With this function you can clear the running time of the lamp. Note

Very Important: Please clear the lamp time every time you replace the lamp.

1. Access the main menu.
2. Tap the UP button until “TIME” is displayed, press MODE/ENTER.
3. Tap the UP button until “CLMP” is displayed, press MODE/ENTER.
4. Press MODE/ ENTER, the display will show “ON/OFF” .
5. Press the UP button to select “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT/DN to return to the main menu.

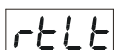
## 7. **RPAN MENU -**



**RPAN** – This menu function will reverse the mirror PAN movements.

1. Access the main menu.
2. Tap the UP button until “RPAN” is displayed, press MODE/ENTER.
4. The display will show “ON/OFF”.
5. Press the UP button to select “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.

## 8. **RTLT MENU -**

A small rectangular display showing the text "rtlt" in a monospaced font.

**RTLT** – This menu function will reverse the mirror TILT movements.


1. Access the main menu.
2. Tap the UP button until “RTLT” is displayed, press MODE/ENTER.
4. The display will show “ON/OFF”.
5. Press the UP button to select “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.

## 9. **FINE MENU -**

**FINE** – This menu function will toggle between the 16bit and 8bit operating modes. In 16bit mode the unit will have 11 DMX channels which includes two pan movement channels and two tilt movements channels. In 8bit mode the fixture will only have one pan and one tilt movement channel for a total of nine DMX channels.

1. Access the main menu.
2. Tap the UP button until “FINE” is displayed, press MODE/ENTER.
4. The display will show “ON/OFF”.
5. Press the UP button to select “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.

## 10. **DISP MENU -**

A small rectangular display showing the text "disp" in a monospaced font.

This menu function will control the various on-board display features.

**VALU** – This function will display the DMX value of each channel as it is change with a DMX console

1. Access the main menu.
2. Tap the UP button until “DISP” is displayed.
3. Press MODE/ENTER, the display will show “VALU”.
4. Press MODE/ENTER, once again “d-00” will be displayed.
5. Press MODE/ENTER to confirm.
6. Press EXIT to return to the main menu.



**D ON** – This function will turn the display off after the unit has gone two seconds without any activity.

1. Access the main menu.
2. Tap the UP button until “DISP” is displayed.
3. Press MODE/ENTER, the display will show “VALU”.
4. Tap the UP button until “D-ON” is displayed and tap the MODE/ENTER button.
4. Press the UP button to select “ON” to activate this function, or “OFF” to deactivate this function.
5. Press MODE/ENTER to confirm.
6. Press EXIT to return to the main menu.

**FLIP** – This function will reverse the display readout by 180°.

1. Access the main menu.
2. Tap the UP button until “DISP” is displayed.
3. Press MODE/ENTER, the display will show “VALU”.
4. Tap the UP button until “FLIP” is displayed and tap the MODE/ENTER button.
4. Press the UP button to select “ON” to activate this function, or “OFF” to deactivate this function.
5. Press MODE/ENTER to confirm.
6. Press EXIT to return to the main menu.

## 11. **SPEC MAIN MENU -**

**LAU** – This function control the automatic lamp start feature. By default the unit will

automatically ignite the lamp when unit is turned on. Use this function to turn this feature on and off.

1. Access the main menu.
2. Tap the UP button until “SPEC” is displayed, press MODE/ENTER.
3. Tap the UP button until “LAAU” is displayed, press MODE/ENTER.
4. The display will show “ON/OFF” .
5. Press the UP button to display “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.



**DLDF** – This feature allow you to control the lamp via DMX.

1. Access the main menu.
2. Tap the UP button until “SPEC” is displayed, press MODE/ENTER.
3. Tap the UP button until “DLDF” is displayed, press MODE/ENTER.
4. The display will show “ON/OFF” .
5. Press the UP button to display “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.



**DLAY** – This function allow the user to set a lamp “strike” delay time.

1. Access the main menu.
2. Tap the UP button until “SPEC” is displayed, press MODE/ENTER.
3. Tap the UP button until “DLAY” is displayed, press MODE/ENTER.
4. The display will show “D-XX” .
5. Press the UP and DOWN buttons to adjust the delay time.
6. When completed press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.

**SPOT** – This function allows you to optimize the lamp without the use of an external DMX controller. In this mode, the device will not react to any control signal.

1. Access the main menu.
2. Tap the UP button until “SPEC” is displayed, press MODE/ENTER.
3. Tap the UP button until “DFSE” is displayed, press MODE/ENTER.
4. The display will show “ON/OFF” .
5. Press the UP button to display “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.



**DFSE** - With this function you can restore the factory settings of the device. All settings will be set back to the default values. Any edited scenes will be lost. When restoring the factory settings the unit must be set to the address that the unit was in when you started editing. ***When you exit this function, the unit will begin to reload data.***

1. Access the main menu.
2. Tap the UP button until “SPEC” is displayed, press MODE/ENTER.
3. Tap the UP button until “DFSE” is displayed, press MODE/ENTER.
4. The display will show “ON/OFF” .
5. Press the UP button to display “ON” to activate this function, or “OFF” to deactivate this function.
6. Press MODE/ENTER to confirm.
7. Press EXIT to return to the main menu.



**VER** - Use this function to display the Software version of the unit.

1. Access the main menu.
2. Tap the UP button until “SPEC” is displayed, press MODE/ENTER.
3. Tap the UP button until “VER” is displayed, press MODE/ENTER.
4. The display will show “V-1.0”, the display may also show, “V-2.0”, “V-9.9” etc.



5. Press ENTER or EXIT/DN to exit. EDIT - This menu item allows you to write a program into the memory (EEPROM) via the control panel or via the external controller.

## 12. **EDIT MENU -**

**Ed It**

This features allows you to enter and store a preset show in to the fixtures internal memory. This show can then be recalled at anytime without a controller.

**rUN**

**RUN** - With the function “RUN”, you can run your pre-made program. You can set the number of steps under Step (S-01- S-48). You can edit the individual scenes under Edit.

1. Access the main menu.
2. Tap the UP button until “EDIT” is displayed, press MODE/ENTER.
3. Tap the UP button until “RUN” is displayed, press MODE/ENTER.
4. “AUTO” is displayed. If you press the UP button it will show “SOUN” . Select which one you want to activate, and press ENTER.
5. Press UP, to select “ALON” or “NAST” . Which mean stand alone, and master/slave mode.
6. Select a mode, and press ENTER to confirm.
7. Press EXIT/DN to return to the main menu.

**StEP**

**STEP** - With this function you can program the number of steps in your individual Program.

1. Access the main menu.
2. Tap the UP button until “EDIT” is displayed, press ENTER.
3. Tap the UP button until “STEP” is displayed, press ENTER.
4. The display shows “S-01” , this stands for the first step of your program. You can

call up to 48 scenes in “Run” . For example, if “S-05” is displayed, it means that “Run” will run the first 5 scenes you saved in “Edit” .

5. Press ENTER to save and exit.

**SC01**

**SC01** - With this function you can choose the number of scenes in your Program.

1. Access the main menu.
2. Tap the UP button until “EDIT” is displayed, press MODE/ENTER.
3. Tap the UP button until “SC01” is displayed.
4. The display shows “SC01” , this stands for the first scene of your program. You can call up to 30 scenes. For example, if “SC05” , it means that “Run” will run the first 5 scenes you saved in “Edit” .
5. Press ENTER to save and exit.

**Editing procedure 1:** Using the control board only.

1. Access the main menu.
2. Tap the UP button until “EDIT” is displayed. Press MODE/ENTER.
3. The display will show “SC-01” , this stands for the scene number. For example, “SC-01” is displayed, it means you will be editing scene 1, press MODE/ENTER. You can change the scene number by pressing the UP button.
4. Press MODE/ENTER, the display will show “C-1” , this stands for the channel number. If “C-01” is displayed, you will be editing channel 1 of your selected scene, press MODE/ENTER. You can change the channel number by pressing the UP button.
5. The display will show the DMX value for the channel that is being edited. It will be displayed as “11XX” , it stands for Channel 11 of the editing scene, the DMX value is “XX” .
6. Adjust the DMX value by pressing the UP button, until you get the expected effect for this channel.
7. Press MODE/ENTER to enter the editing of the other channels of the scene.

8. Repeat steps 5-8, until you finish setting all the DMX values for all the channels of this scene, each scene can have 15 channels maximum.
9. Once all the channels are completed, the display will flash “TIME”, this stands for the time needed to run this scene.
10. Press MODE/ENTER to edit the time needed, the display shows “T-XX”, “XX” stands for the time needed to run this scene. For example, “T-02” means scene 1 needs 6 seconds to run, “T-15” means this scene needs 45 seconds to run.  
Note: “XX” is always three seconds not one second.
11. Adjust the time needed by pressing the UP button.
12. Press MODE/ENTER to save the settings for the scene you are editing, the display will change to the next scene automatically.
13. Repeat steps 3-12 to edit other scenes, you can edit and save 48 scenes maximum.
14. Press EXIT to exit, now you have edited and saved scenes using the control board. The number of steps can be defined under “EDIT” and the scenes can be called up under “Run”. To run the scenes see page 26.

### **Editing procedure 2:** Using an external controller.

1. Access the main menu.
2. Tap the UP button until “EDIT” is displayed. Press MODE/ENTER.
3. The display will show “SC01”, this stands for the first scene number to be edited. For example: If “SC01” is displayed, you will be editing scene 1.
4. Change the scene number by pressing the UP button.
5. Press MODE/ENTER, the display will show “C-01”, the “1” stands for the channel number 1.
6. Press the UP button until “CEDT” is displayed, press MODE/ENTER.
7. The display will show “OFF”, press the UP button so that “ON” is displayed, press MODE/ENTER.
8. The display shows “SC02”. You have successfully downloaded the .rst scene.

9. Adjust the Step-time. needed by pressing the UP button.
10. Call up the second scene in your controller now.
11. Repeat steps 3-6 until all desired scenes are downloaded.
12. Press EXIT to exit. The number of steps can be defined under “Step” and the scenes can be called up under “Run” .



**DMX channel function and values:****Channel 1 – PAN Coarse 8bit :****Channel 2 – PAN Fine 16bit****Channel 3 – TILT Coarse 8bit****Channel 4 – TILT Fine 16bit****Channel 5 - Color Wheel :**

0-13	Open (White)
14-27	RED
28-41	BLUE
42-55	GREEN
56-69	YELLOW
70-83	MAGENTA
84-97	ORANGE
98-111	UV FILTER
112-128	PINK
128-187	Clockwise Color Scroll (fast to slow)
188-193	No Rotation
194-255	Counter-Clockwise Color Scroll (slow to fast)

**Channel 6 - Gobo**

0-9	Open
10-19	Gobo 1
20-29	Gobo 2
30-39	Gobo 3
40-49	Gobo 4
50-59	Gobo 5
60-69	Gobo 6
70-89	Gobo 1 Shake (slow to fast)
90-109	Gobo 2 Shake (slow to fast)
110-129	Gobo 3 Shake (slow to fast)
130-149	Gobo 4 Shake (slow to fast)
150-169	Gobo 5 Shake (slow to fast)
170-189	Gobo 6 Shake (slow to fast)
190-255	Gobo Wheel Continuous Rotation (slow to fast)

**Channel 7 - Gobo indexing, Gobo rotation**

0-127	Gobo Indexing
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- 128-187 Clockwise Gobo Rotation (fast to slow)
- 188-193 No rotation
- 194-255 Counter-Clockwise Gobo Rotation (slow to fast)

### **Channel 8 - Shutter, Strobe:**

- 0-31 Shutter Closed
- 32-63 Dimmer (close to open)
- 64-95 Strobe Effect (slow to fast)
- 96-127 No function (shutter open)
- 128-159 Pulse-effect in sequences
- 160-191 No function (shutter open)
- 192-223 Random strobe effect slow to fast
- 224-255 No function (shutter open)

### **Channel 9 - Focus**

- 0-255 Continuous adjustment from near to far

### **Channel 10 – Pan/Tilt Motor Speed**

- 0-4 Max speed
- 5-225 Max to min speed
- 226-235 Blackout by movement
- 236-245 Blackout by all wheel changing
- 246-255 No function

### **Channel 11 – Special Functions**

- 0-19 Color change normal
- 40-59 Lamp on
- 60-79 Lamp switch off
- 80-99 Motor reset
- 100-119 Internal program 1
- 120-139 Internal program 2
- 140-159 Internal program 3
- 160-179 Internal program 4
- 180-199 Internal program 5
- 200-219 Internal program 6
- 220-239 Internal program 7
- 240-255 Internal program 8

## ***ERROR CODES:***

When power is applied, the unit will automatically enter a “reset” mode. This mode brings all the motors to a home position. If there is an internal problems with one or more of the motors an error code may flash in the LCD. “XXer” may appear in the LCD where “XX” represents a channel (1,2,3,5,6,7) with a possible alignment problem.

For example, when the display shows “02Er”, it means there is some error in channel 2. If there are some errors on channel 1, channel 2, channel 5 at the same time, you may see the error message “01Er”, “02Er”, “05Er” flash repeated for 5 times, and then the fixture will generate a reset signal, all the stepper reset. If the fixture remain error message after performing reset more than 3 times, it will detect whether the fixture has more than 3 errors. If the fixture has more than 3 errors (including 3 errors), all the channels can not work properly; but if the fixture has less than 3 errors, only the channels which have errors can not work properly, others can work as usual.

### **01Er**

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

### **02Er:**

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

### **03Er:**

(Color-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the



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stepping-motor is defective (or its drive circuit on the main PCB). The color wheel is not located in the default position after the reset.

**04Er:**

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

**05Er**

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

## CLEANING AND MAINTENANCE

The following points have to be considered during the inspection:

1. All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
2. There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
3. Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
4. The electric power supply cables must not show any damage, material fatigue or sediments.

*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 serviceable parts inside the device except for the lamp. Please refer to the instructions under “Installation instructions”.

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

## ***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 whatsoever 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

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products covered by this warranty were manufactured after January 1, 1990, and bear 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.

## TECHNICAL SPECIFICATIONS

*Power supply :*

110VAC,50Hz;  120VAC, 50Hz;  220VAC,50Hz;  230VAC,50Hz;  240VAC, 50Hz;

110VAC,60Hz;  120VAC,60Hz;  220VAC,60Hz;  230VAC,60Hz;  240VAC,60Hz;

*Power consumption :* max.  300W  400W:

*Lamp :*  CDMT-150 G12 socket, Metal Halide;

MSD250 GY9.5 socket, Metal Halide;

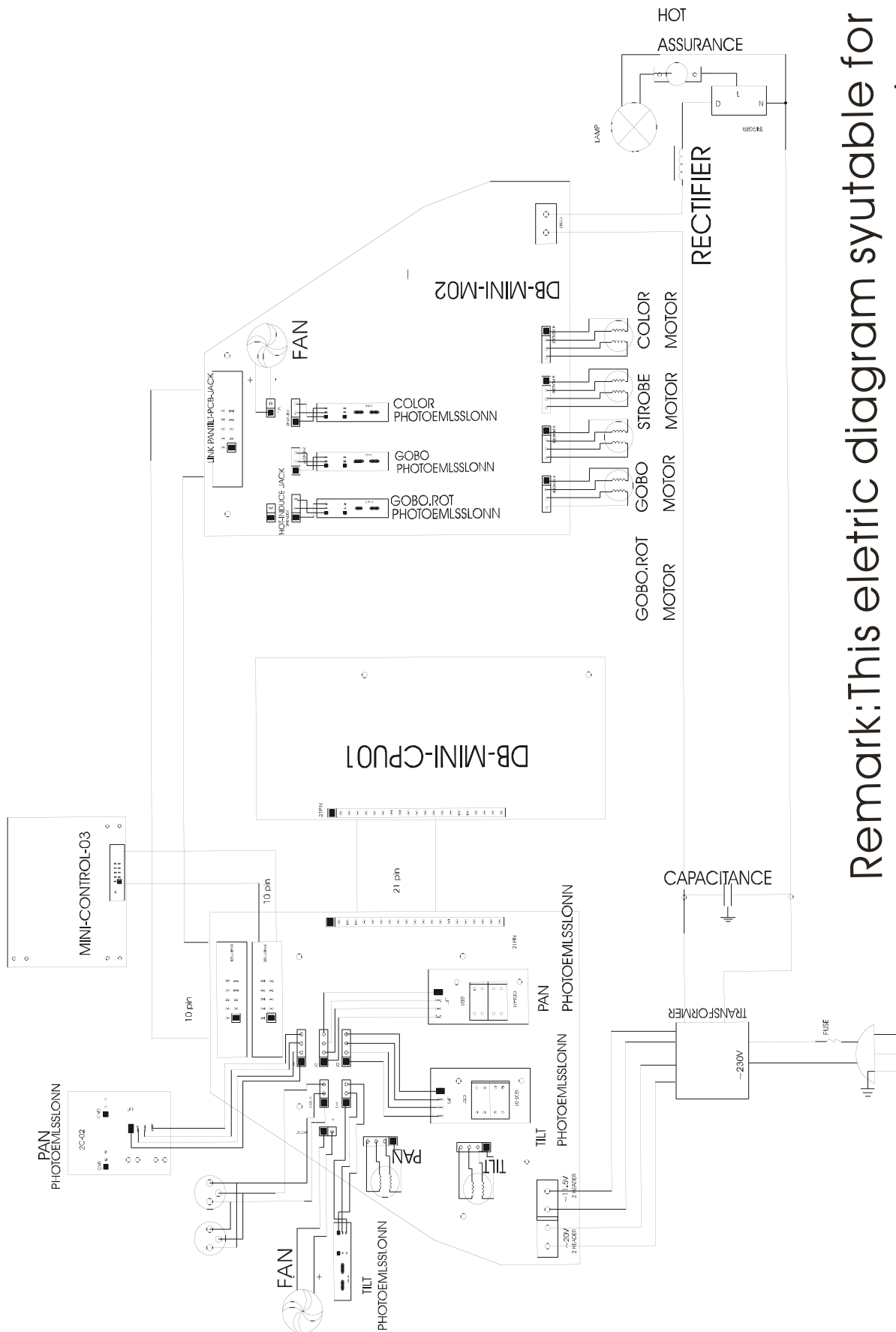
*Motors :* 7 micro motors

*Packing dimensions :* 58 x 42 x 46 cm

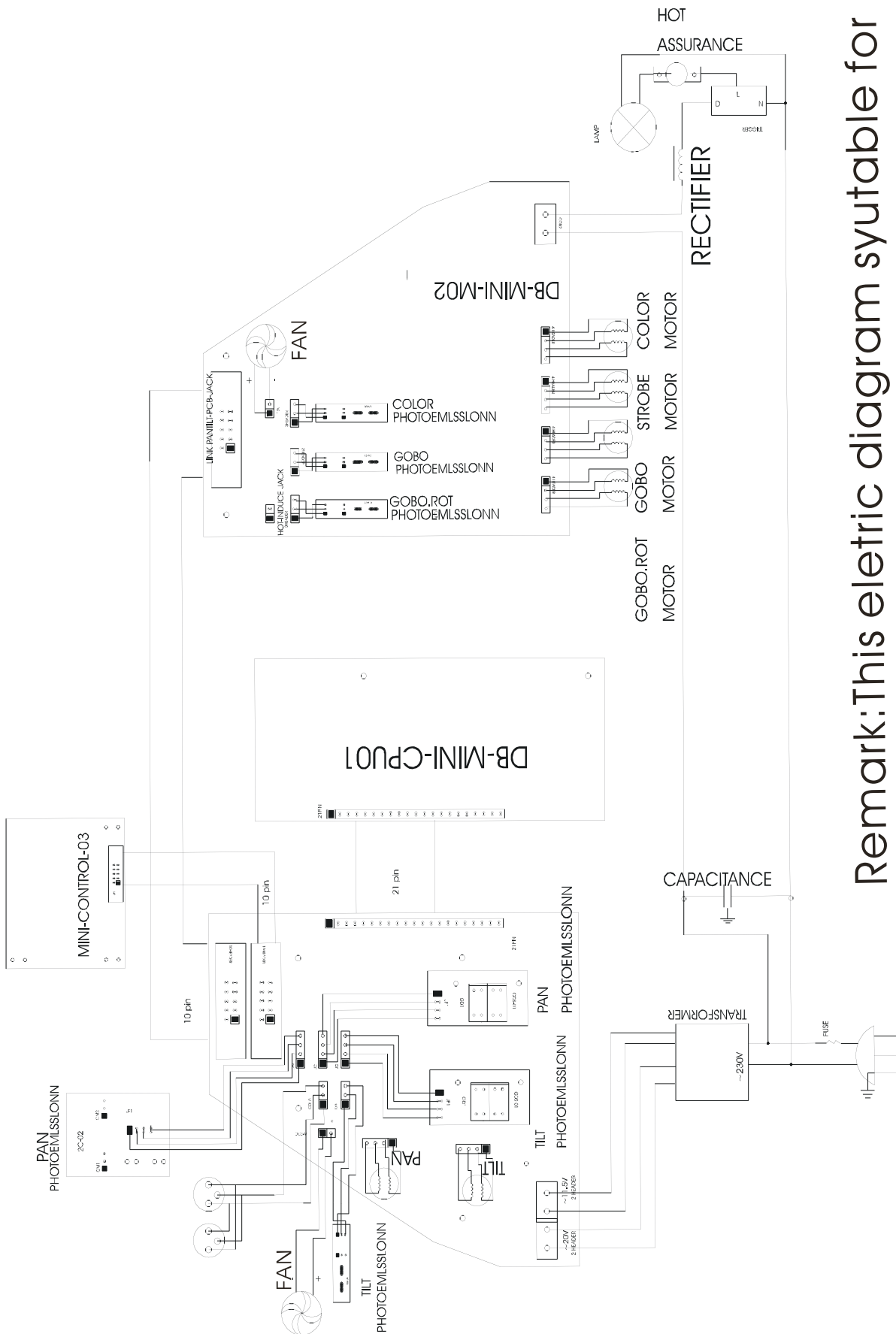
*Net weight :*  13 KGS;  14 KGS;  16 KGS;

*Gross weight:*  16 KGS;  17 KGS;  19 KGS;

*Remark :* errors and omissions for every information given in this manual excepted. All information is subject to change without prior notice.



Remark: This electric diagram is suitable for



Remark: This electric diagram is suitable for

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