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**CAUTION!**

*Be careful with your operations.*

*With a high voltage you can suffer a dangerous electric shock when touching the wires!*

**DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS.**

## 1. OPENING AND CHECKING

Congratulations on choosing our products! Please carefully read this instruction manual in its entirety and keep it well for using reference. This manual contained about the installation and the relative using information of this products. Please according to this manual's relative speaking when using this equipment. Instructions and warning notes written in this manual

## 2. SAFETY INTRODUCTION

Make sure that the available voltage is not higher than stated on the rear panel of the fixture.

This fixture should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized distributor or local power company.

Always disconnect the fixture from AC power before cleaning, removing or installing the fuses, or any part.

The power plug has to be accessible after installing the fixture. Do not overload wall outlets and extension cords as this can result in fire or electric shock.

Do not allow anything to rest on the power cord. Do not locate this fixture where the cord may be damaged by persons walking on it.

Make sure that the power cord is never crimped or damaged by sharp edges. Check the fixture and the power cord from time to time.

Refer servicing to qualified service personnel

This fixture falls under protection class I. Therefore this fixture has to be connected to a mains socket outlet with a protective earthing connection

Do not connect this fixture to a dimmer pack.

LED light emission. Risk of eye injury. Do not look into the beam at a distance of less than 1 meter from the front surface of the product. Do not view the light output with optical instruments or any device that may concentrate the beam.

If the fixture has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

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

This fixture was designed for indoor use only, do not expose this unit to rain or use near water.

When choosing the installation spot, please make sure that the fixture is not exposed to extreme heat, moisture or dust.

Air vents and slots in the fixture's head and base are provided for ventilation, to ensure reliable operation of the device and to protect it from overheating.

Do not block the LEDs array with any object when the fixture is under operation.

The openings should never be covered with cloth or other materials, and never must be blocked.

This fixture should not be placed in a built-in installation unless proper ventilation is provided.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

Always use a secondary safety cable when mounting this fixture.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Do not block the front objective LEDs with any object when the fixture is under operation.

The fixture becomes very hot during operation. Allow the fixture to cool approximately 20 minutes prior to manipulate with it.

Operate the fixture only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the fixture. Most damages are the result of unprofessional operation!

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

Please consider that unauthorized modifications on the fixture are forbidden due to safety reasons!

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 dangers like short circuit, burns, electric shock, crash etc

***CAUTION!***

***Fixtures must be installed by a Qualified electrician in accordance with all national and local electrical and construction codes and regulation.***

### 3. INSTALLATION

#### 3.1 Connection to the mains

For protection from electric shock, the fixture must be earthed!

The LED BLAST is equipped with auto-switching power supply that automatically adjusts to any 50/60Hz AC power source from 100-240 Volts.

Install a suitable plug on the power cord, note that the cores in the power cord are coloured according to the following table. The earth has to be connected!

If you have any doubts about proper installation, consult a qualified electrician.

Core (EU)	Core (US)	Connection Plug	Terminal Marking
Brown Light blue Yellow/Green	Black White Green	Live Neutral Earth	L N 

### 3.2 Rigging the fixture

The installation of the fixture has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net.

This secondary safety attachment must be constructed in a way that no part of the installation can fall down if the main attachment fails.

When rigging, dragging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an

expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

The fixture should be installed outside areas where persons may walk by or be seated.

**IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE**, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury or damage to property.

The fixture has to be installed out of the reach of people.

If the fixture shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The fixture must never be fixed swinging freely in the room.

**CAUTION!**

*Use an appropriate clamp to rig the fixture on the truss.*

*Follow the instructions mentioned at the bottom of the base.*

*Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure*

Before rigging make sure that the installation area can hold a minimum point load of 10 times the fixture's weight.

When installing the device, make sure there is no highly inflammable

material (decoration articles, etc.) in a distance of min. 0.5 m.

**CAUTION!**

*Fixture may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the moving head!*

The fixture can be placed directly on the stage floor or rigged on a truss without altering its operation characteristics

For securing a fixture to the truss install a safety wire that can hold at least 10 times the weight of the fixture.

Use only safety wire with screw-on carabina. Pull the safety wire through the carrying handles and around the truss as shown on the pictures below.

Note: If the safety wire is too long, whip it several times around the truss in order to attach the fixture tight.

In case of an accident, the way of the falling fixture will be short.

## 4. CONTROL PANEL

The fixture is equipped with both 3-pin and 5-pin XLR sockets for DMX input and output. The sockets are wired in parallel. Only use a shielded twisted-pair cable designed for RS-485 and 3-pin or 5-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

Occupation of the XLR-connection:

DMX - output DMX-input

XLR mounting-sockets (rear view): XLR mounting-plugs (rear view):



If you are using the standard DMX controllers, you can connect the DMX output of the controller directly with the DMX input of the first fixture in the DMX chain. If you wish want to connect DMX controllers with other XLR outputs, you need to use adapter-cables.

Building a serial DMX chain:

Connect the DMX output of the first fixture in the DMX chain with the DMX input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.

Caution: At the last fixture, the DMX cable has to be terminated with a terminator. Solder a 120  $\Omega$  resistor between Signal (-) and Signal (+) into a XLR plug and plug it in the DMX output of the last fixture.

**IMPORTANT:** The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

Switching on the projector

Press the switch. The projector starts resetting the effects. At the same time, the following information scrolls on the display:

On conclusion of resetting in case of absence of the DMX signal, Pan and Tilt move to the “Home” position (Pan 50% - Tilt 50%). The control panel has a display and buttons for the complete programming and management of the projector menu. The display can be in one of two conditions: rest status and setting status. When it is in the rest status, the display shows the projector’s DMX address and the Fixture ID address (if set).

During menu setting status, after a wait time (about 30 seconds) without any key having been pressed, the display automatically returns to rest status.

It should be noted that when this condition occurs, any possible value that has been modified but not yet confirmed with the F key will be cancelled.

### Setting the projector starting address

On each projector, the starting address must be set for the control signal (addresses from 1 to 512).

The address can also be set with the projector switched off.

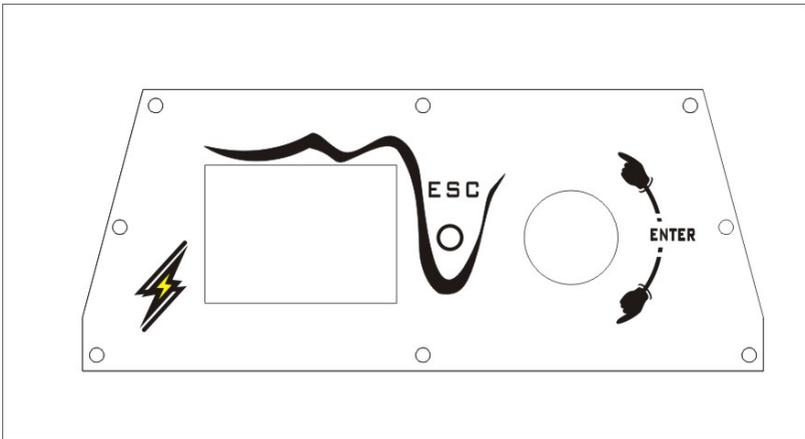
Setting the address:

#### 5. FUNCTIONS OF THE BUTTONS - USING THE MENU

"RNS"—Encoder wheel moves between menu items on the same level, scrolls between values .

"ESC"—Button-leaves menu without saving changes

"ENTER"—button enters menu, confirms adjusted values and leaves menu.



## Setting addresses and options with the projector disconnected

The projector's DMX address, as well as other possible operating options, can also be set when the appliance is disconnected from the electricity supply.

All that is needed is to press " ENTER " to momentarily activate the display and thus access the settings. Once the required operations have been carried out, the display will switch off again after a wait time of 30 seconds.

## 6. MENU SETTING v1.5

<b>Fixture Address</b>	<b>DMX Address</b>	<b>001----512</b>	
	Display Adjusting	Display Permanent On (ON/Off)	
		Display Intensity (1..10)	
		Display Backlight (1..5..10)	
		Display turned (On/Off)	
	Mode 1		Ch.1
			Ch.25
			Set Active
			Ch.1

<b>Personality</b>	DMX Presetting	Mode 4	Ch.14
			Set Active
		Mode 5	Ch.1
			Ch.25
			Set Active
		Pan/Tilt Presetting	Pan Reverse(On,Off)
	Tilt Reverse(On,Off)		
	Pan/Tilt Feedback (On,Off)		
	Pan/Tilt mode	Time Mode	
		Speed Mode	
	Pan/Tilt Speed	Standard Speed	
		High Speed	
	Color Calibration	On/off	
Active Blackout While	Blackout D.M.C. (On,Off)		
	pan/Tilt Moving (On,Off)		
Temperature Unit	°C, °F		
Init Effect Positions	Ch.1		
	Ch.32		
Default Setting			

<b>Fixture information</b>	Power On Time	Total Hours		
		Resetable Hours		
	Fixtures Temperatures	Current Temp.	Ambient Temp.[°C]	
			LEDs Temp.[°C]	
		Maximum Temp.	Ambient Temp.[°C]	
			LEDs Temp.[°C]	
	Software Version			
	Product IDs	MAC Adr.		
		Code		
	DMX Values	CH1		
Ch32				
<b>Test sequences</b>	Mode 1	Pan (0-255)		
		Tilt		
		Zoom		
		Focus		
		Run Test Program		
	Mode 2	Run Test Program		
<b>Manual Mode</b>	Manual Effect Control	Pan (0-255)		
		Dimmer fine(0-255)		
		Program1		

<b>Stand-alone setting</b>	Editing Program	Program2		
		Program3		
		Edit Steps	Step1~Step99	
			Pan (0-255)	
			Dimmer fine (0-255)	
			Step Time (0.1-25.5s)	
			Save	
			Save and copy	
	Start Step (1-99)			
	End Step (1-99)			
	Playing Program	Test Program In Loop		
		Program 1In Loop		
		Program 2In Loop		
		Program 3In Loop		
Presetting Playback	Disabled			
	Test Program			
	Program1			
	Program2			
	Program3			
<b>Reset functions</b>	Reset All			
	Pan/Tilt			
	Zoom			

<b>Special functions</b>	Effect Adjustment	DMX Values	Pan (0-255)
			Dimmer (0-255)
		Calibrate Values	Red(0-255)
			Green (0-255)
			Save and Reset
			Restore

## 7. DMX PROTOCOL V1.5

Model Channel					Value	Function
1	2	3	4	5		
						<b>Shutter/Strobe</b>
					0-19	Shutter closed
					20-24	Shutter open
					25-64	Strobe1: Strobe effect from fast -->slow
					65-69	Shutter open
1	1	1	1	1	70-84	Strobe2: Opening pulses in sequences from fast --> slow
					85-89	Shutter open
					90-104	Strobe3: Closing pulses in sequences from fast--> slow
					105-109	Shutter open

						110-124	Strobe4: Random strobe effect from fast--> slow
						125-129	Shutter open
						130-144	Strobe5: Random strobe effect from fast--> slow
						145-149	Shutter open
						150-164	Strobe6: Random strobe effect from fast--> slow
						165-169	Shutter open
						170-184	Strobe7: Random strobe effect from fast--> slow
						185-189	Shutter open
						190-204	Strobe8: Random strobe effect from fast--> slow
						205-209	Shutter open
						210-224	Strobe9: Random strobe effect from fast--> slow
						225-229	Shutter open
						230-244	Strobe10: Random strobe effect from fast--> slow
						245-255	Shutter open
2	2	2	2	2	0-255	<b>Dimmer (8 bit)</b>	
						Dimmer intensity from 0% to 100%	
3	3	3	3	3	0-255	<b>Zoom</b>	
						Zoom from max to min. beam angle	
4	4	4	4	4	0-255	<b>Pan(8 bit)</b>	



	150-179	Reserved
	180-189	Zoom reset
	190-199	Reserved
	200-209	Total reset
	210-255	Reserved
		<b>Beam RGBW Virtual Color Wheel</b>
	0_9	Open. RGBW color mixing enabled
	10_14	Moroccan Pink
	15_19	Pink
	20_24	Special rose Pink
	25_29	Follies Pink
	30_34	Fuchsia Pink
	35_39	Surprise Pink
	40_44	Congo Blue
	45_49	Tokyo Blue
	50_54	Deep Blue
	55_59	Just Blue
	60_64	Medium Blue
	65_69	Double CT Blue
	70_74	State Blue
	75_79	Full CT Blue

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80_84	Half CT Blue
85_89	Steel Blue
90_94	Lighter Blue
95_99	Light Blue
100_104	Medium Blue Green
105_109	Dark Green
110_114	Primary Green
115_119	Moss Green
120_124	Fern Green
125_129	JAS Green
130_134	Lime Green
135_139	Spring Yellow
140_144	Deep Amber
145_149	Chrome Orange
150_154	Orange
155_159	Gold Amber
160_164	Millennium Gold
165_169	Deep Golden Amber
170_174	Flame Red
175_179	Open. RGBW color mixing enabled

					180_205	Clockwise, fast →slow
					206_229	Counter-clockwise, slow →fast
					230~233	White 2700 K
					234~237	White 3200 K
					238~241	White 4200 K
					242~245	White 5600 K
					246-249	White 8000 K
					250_255	Open. RGBW color mixing enabled
-	1	1	1	1		<b>Beam Red</b> - all zones
	0	0	0	0	0-255	Red LEDs saturation control (0-100%)
-	1	1	1	1		<b>Beam Green</b> - all zones
	1	1	1	1	0-255	Green LEDs saturation control (0-100%)
-	1	1	1	1		<b>Beam Blue</b> - all zones
	2	2	2	2	0-255	Blue LEDs saturation control (0-100%)
-	1	1	1	1		<b>Beam White</b> - all zones
	3	3	3	3	0-255	White LEDs saturation control (0-100%)
1						<b>Beam Red</b> - zone 1
0	-	-	-	-	0-255	Red LEDs saturation control (0-100%)
1						<b>Beam Green</b> - zone 1
1	-	-	-	-	0-255	Green LEDs saturation control (0-100%)
1						<b>Beam Blue</b> - zone 1
2	-	-	-	-	0-255	Blue LEDs saturation control (0-100%)



-	-	-	-	19	<i>Reserved 5</i>
					<b>Back Light Shutter</b>
					0-9 Back Light Shutter closed
					10~19 Back Light Shutter closed
					20-24 Back Light Shutter open
					25-64 Strobe1: Strobe effect from fast -->slow
1	1	1	2	0	65-69 Shutter open
9	5	5	-		70-84 Back Light Opening pulses in sequences from fast --> slow
					85-89 Back Light Shutter open
					90-104 Back Light Strobe3: Closing pulses in sequences from fast--> slow
					105-109 Back Light Shutter open
					110-124 Back Light Strobe4: Random strobe effect from fast--> slow
					125-129 Back Light Shutter open
					130-144 Back Light Strobe5: Random strobe effect from fast--> slow
					145-149 Back Light Shutter open
					150-164 Back Light Strobe6: Random strobe effect from fast--> slow
					165-169 Back LightShutter open
					170-184 Back Light Strobe7: Random strobe effect from fast--> slow
					185-189 Back Light Shutter open
					190-204 Back Light Strobe8: Random strobe effect from fast--> slow

					205-209	Back Light Shutter open
					210-224	Back Light Strobe9: Random strobe effect from fast--> slow
					225-229	Back Light Shutter open
					230-244	Back Light Strobe10: Random strobe effect from fast--> slow
					245-255	Back Light Shutter open
2	1			2	0-255	<b>Back Light Dimmer</b>
0	6	-	-	1		Dimmer intensity from 0% to 100%
						<b>Aura RGB Virtual Color Wheel</b>
					0	No function
					1	Moroccan Pink
					2	Pink
					3	Special rose Pink
					4	Follies Pink
					5	Fuchsia Pink
					6	Surprise Pink
					7	Congo Blue
					8	Tokyo Blue
					9	Deep Blue
					10	Just Blue
					11	Medium Blue

2 1  
1 7 - - 2

12	Double CT Blue
13	State Blue
14	Full CT Blue
15	Half CT Blue
16	Steel Blue
17	Lighter Blue
18	Light Blue
19	Medium Blue Green
20	Dark Green
21	Primary Green
22	Moss Green
23	Fern Green
24	JAS Green
25	Lime Green
26	Spring Yellow
27	Deep Amber
28	Chrome Orange
29	Orange
30	Gold Amber
31	Millennium Gold

					32	Deep Golden Amber
					33	Flame Red
					34	Blue (Blue=full, Red+Green)
					35-73	Red=0, Green->up,Blue =full
					74	Light Blue (Red=0, Green=full, Blue =full)
					75-113	Red=0, Green=full, Blue->down
					114	Green (Red=0, Green=full, Blue =0)
					115-152	Red->up, Green=full, Blue=0
					153	Yellow (Red=full, Green=full, Blue=0)
					154-179	Red=full, Green->down, Blue=0
					180_205	Clockwise, fast →slow
					206_229	Counter-clockwise, slow →fast
					233	Magenta (Red=full, Green=0, Blue=full)
					234-255	Red -> down, Green=0, Blue=full
2	1			2		<b>Backlight Red</b>
2	8	-	-	3	0-255	Red LEDs saturation control (0-100%)
2	1			2		<b>Backlight Green</b>
3	9	-	-	4	0-255	Green LEDs saturation control (0-100%)
2	2			2		<b>Backlight Blue</b>
4	0	-	-	5	0-255	Blue LEDs saturation control (0-100%)
						<b>Pan/Tilt speed, Pan/Tilt time</b>
					0	Max. speed (tracking mode)



## 8. TECHNICAL INFORMATION

AC power: 100-240 V nominal, 50/60 Hz

Maximum total power consumption: 800 W

Light source: Osram high-power LED emitters

Beam color mixing: RGBW

Aura color mixing: RGB

Total output: 16000 lumens (zoom at maximum)

Minimum LED lifetime: 60 000 hours (to >70% luminous output)

Control: DMX, protocol modes 25/21/16/14/25

3-editable programs, each up to 100 steps

RDM: Implemented

Pan/Tilt used 3-Phase 1.2° ENCAPSULATED STEPPING MOTOR, ZOOM linear actuators.

Pan and tilt speed: Adjustable via onboard control panel and DMX

Pan/Tilt movement: Pan: 540°; Tilt: 270°

Control resolution: 8-bit, with 16-bit control of pan & tilt

Resolution: PAN=2.11°, PAN FINE=0.008°, TILT=0.98°, TILT FINE=0.004°

Virtual color wheel: 237 colors including whites (2700K, 3200K, 4200K, 5600K and 8000K)

Color temperature control: CTO, variable 10 000 - 2500 K

Strobe effect with variable speed (max. 20 flashes per second)

Zoom: 11° - 60°

Display: Blue/white LCD graphic

Color: Black

Housing: High-impact flame-retardant thermoplastic

Protection rating: IP20

Weight: 9.33kg

## 9. MAINTENANCE AND CLEANING

### ***CAUTION!***

*Disconnect from the mains before starting any maintenance work*

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on or within the fixture. Otherwise, the fixture's light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably throughout its life.

A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!

The head of transparent cover will require weekly cleaning as smoke-fluid tends to building up residues,

reducing the light-output very quickly. The cooling fans should be cleaned monthly.

The interior of the base should be cleaned at least annually using a vacuum-cleaner or an air-jet.

More complicated maintenance and service operations are only to be carried out by authorised distributors.

### 8.1 Replacing fuse

Only replace the fuse by a fuse of the same type and rating.

**Before replacing the fuse, unplug mains lead!**

If you need to replace the main fuse, follow the instructions:

- 1) Remove the rear cover of the base by unscrewing 6 fastening screws.
- 2) Remove the old fuse from the fuse holder.
- 3) Install the new fuse into the fuse holder.
- 4) Replace the rear cover back to the base..