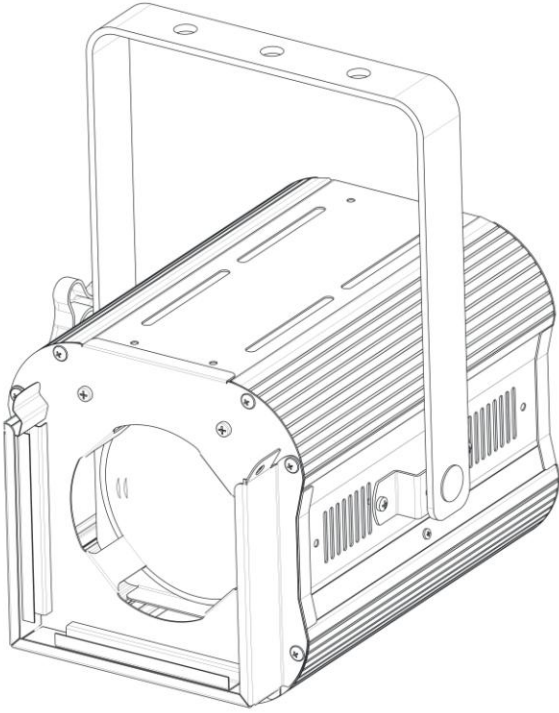
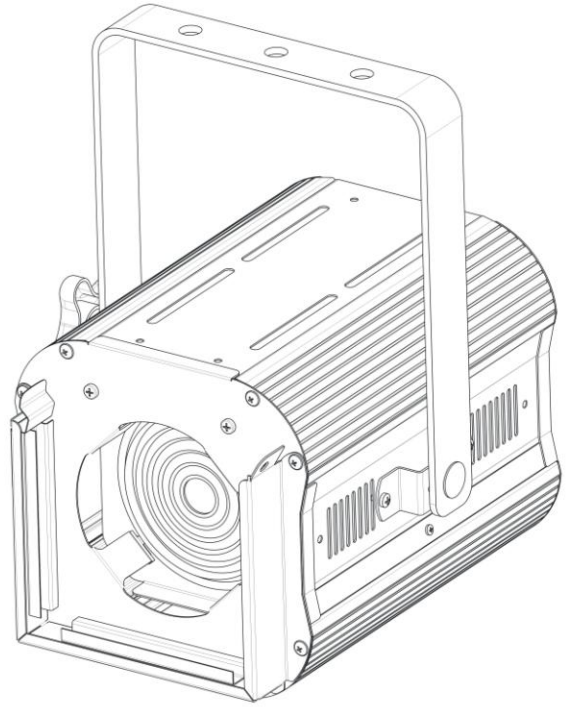


TEATRO LED SPOT 100



TEATRO LED SPOT 100 PC



TEATRO LED SPOT 100 FR

User's Manual rel 1.0 GB

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1- SYMBOLS

Graphic symbols used on this manual:



THIS SYMBOL INDICATES A HOT SURFACE



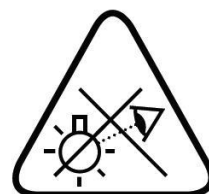
THIS SYMBOL INDICATES ELECTRIC SHOCK RISK



THIS SYMBOL INDICATES GENERAL RISK

t_a 40°C

THIS SYMBOL INDICATES THE MAXIMUM OPERATING AMBIENT TEMPERATURE



THIS SYMBOL MEANS “DO NOT STARE AT THE OPERATING LIGHT SOURCE”



THIS SYMBOL INDICATES PHOTOBIOLOGICAL SAFETY



THIS SYMBOL INDICATES THE EUROPEAN COMMUNITY DIRECTIVE 2012/19/EC ON WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

2- GENERAL WARNING

Read the instruction contained in this user manual carefully, as they give important information regarding safety during installation, use and maintenance.

The unit is not for household use and must be installed by a qualified electrician or experienced person.

Always disconnect the device from the mains before maintenance.

The device must always be equipped with an efficient ground connection.

3- GENERAL WARRANTY CONDITIONS

The unit is guaranteed for 36 months from the date of purchase against manufacturing material defects.

4- TECHNICAL FEATURES

Product codes:

426923 TEATRO LED SPOT 100 PC Black finishing
426924 TEATRO LED SPOT 100 FR Black finishing

LED Technology

Single high-power White 3000K LED
CRI > 90
LED lifespan: 50.000 hours (70% lumen output)

Optical group

PC model:
Ø 120 mm PC lens
12° - 79° linear motorized zoom

FR model:
Ø 112 mm Fresnel lens
17° - 82° linear motorized zoom

Control

DMX 512 or Manual control
6 DMX channels (Default) or 2 DMX channels
4-digit 7-segment LED display + 4 soft keys

Power supply

Full-range 100-240Vac 50-60 Hz
Consumption: 150W Max

Connections

Power supply: PowerCON In&Out panel connectors
DMX: XLR 5 pins In&Out panel connectors

Internal safety devices

Overvoltage and overtemperature circuit protection

Operating ambient temperature

-10° / 40°

Weight

PC model: 5,5 Kg
FR model: 5,2 Kg

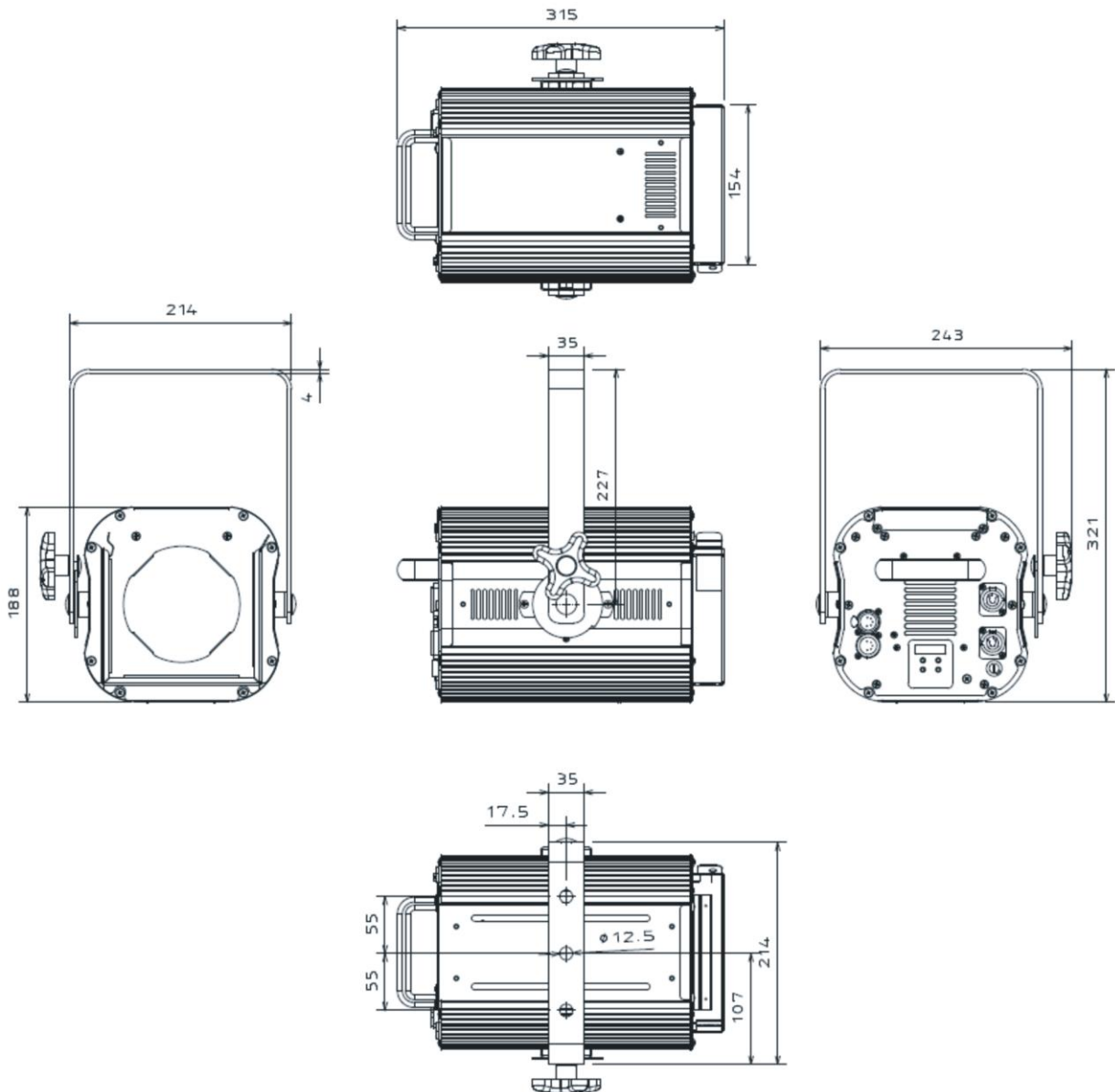
Certifications



2014/35/UE ; 2014/30/UE
IEC 62471 ; IEC 695-2-1

EN 60598-1 ; EN 62471 ; EN 61347-2-13
EN 60598-2-17 ; EN 55015 EMC ; EN 61347-1

DIMENSIONS



5- ACCESSORIES

As standard

- Filterframe black finishing - already installed on the projector (code 02M00416.46)

Optional (on request)

- Barndoor black finishing (code 03.TBD01)

6- IMPORTANT SAFETY INFORMATION

6.1 Fire prevention:

Replace any blown or damaged fuses only with those of identical value: T 2A 250V.

6.2 Prevention from electric shock:



High voltage is present inside the unit. Unplug the unit prior to performing any operation which involves touching the inside of the unit.
 This equipment must be grounded, do not connect to non-grounded supplies.
 The use of a thermal magnetic circuit breaker is recommended for each TEATRO LED SPOT 100 unit. Use only AC supplies 100-240V 50-60 Hz.
 The unit should never be located in position exposed to rain or in areas of extreme humidity.
 A good air ventilation is essential for proper equipment work.

6.3 Safety:



Risk Group 2 product according to EN 62471. Risk Group 2



CAUTION. Do not look directly into the light output. May be harmful to the eyes and skin.



Do not stare at the operating light source.
 The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
 The unit is not for household use and must be installed by a qualified electrician or experienced person.
 The external surface of the unit may exceed 60°C; never handle the unit until at least 5 minutes have elapsed since the unit was turned off.
 Never install the unit in an enclosed area lacking sufficient air flow.



The ambient temperature should not exceed 40°C. t_a 40°C



6.4 Waste Electrical and Electronic equipment (WEEE) directive:

The unit, accessories and packaging should be sorted for environmental-friendly recycling.

For EC countries: according to the European Directive 2012/19/EC for Waste Electrical and Electronic Equipment and its implementation into national right, luminaires that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

7- INSTALLATION

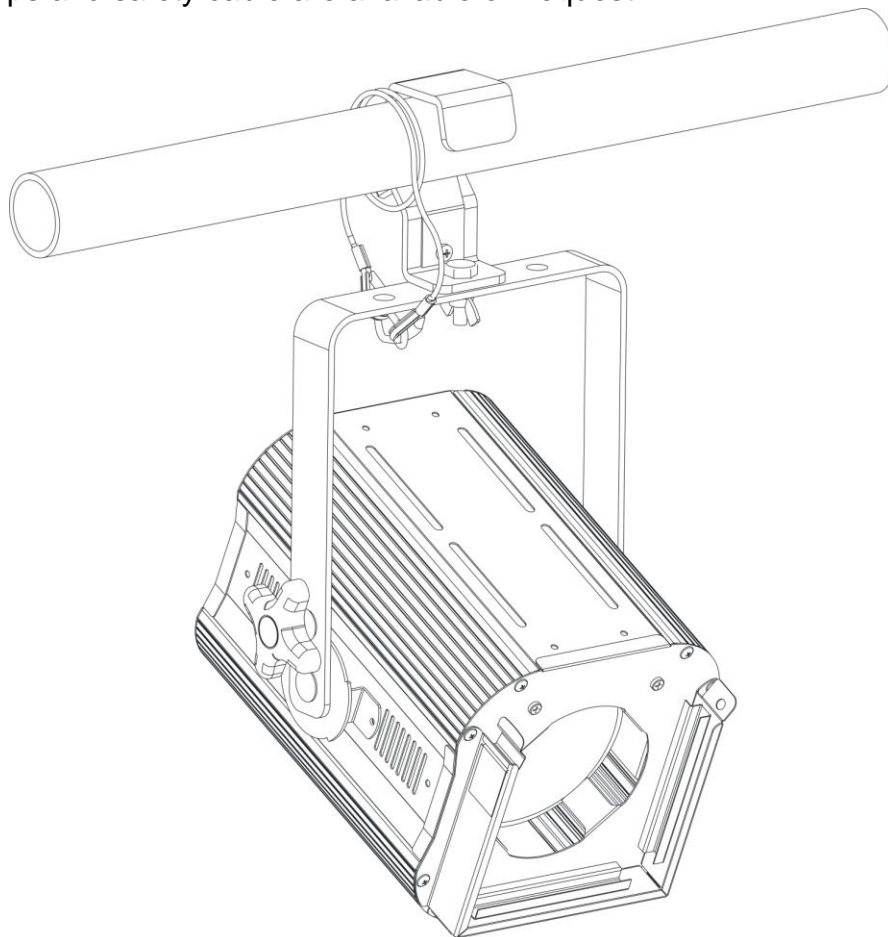
The unit is suitable for dry locations only.

TEATRO LED SPOT 100 can be installed on a truss or on the ceiling.

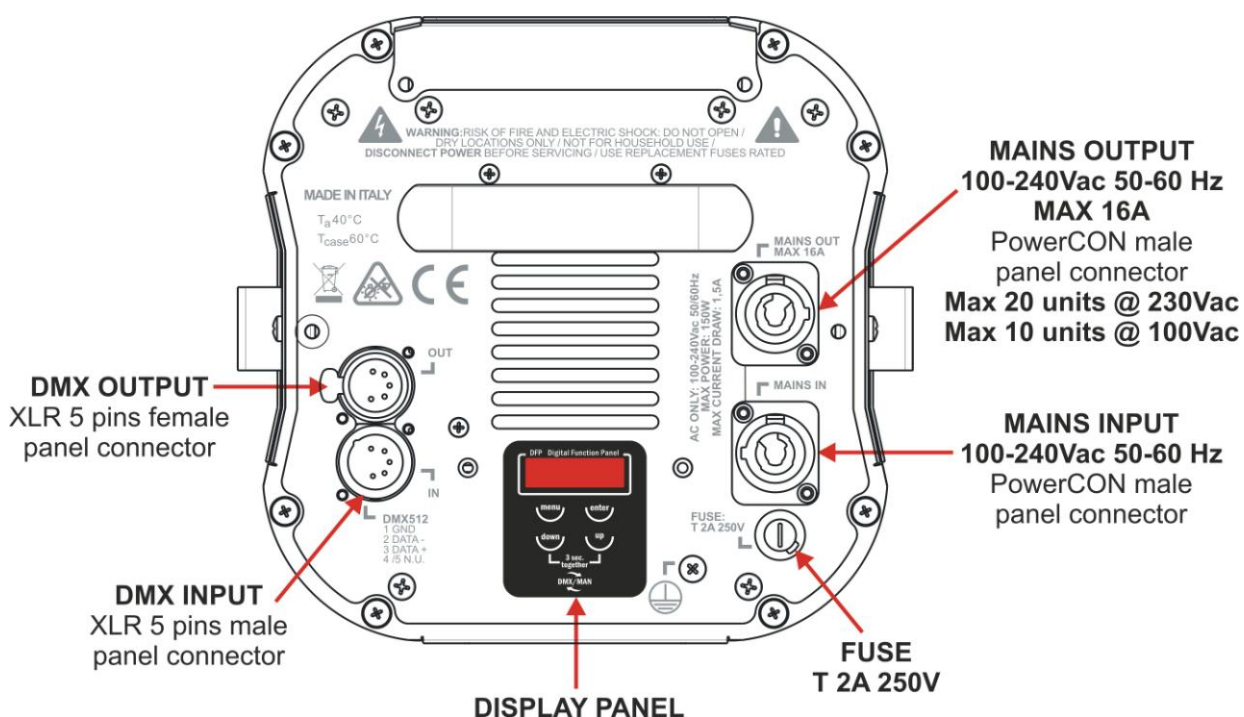
It is recommended the use of appropriate clamps to fix the unit to the mounting surface.

ATTENTION: A safety cable must be securely fixed to the unit's mounting bracket and to the support structure of the projector as shown in the picture below.

Fixing clamps and safety cable are available on request.



8- INPUT / OUTPUT CONNECTIONS



9- DMX SIGNAL CONNECTION:

The unit operates using a digital DMX 512 signal.

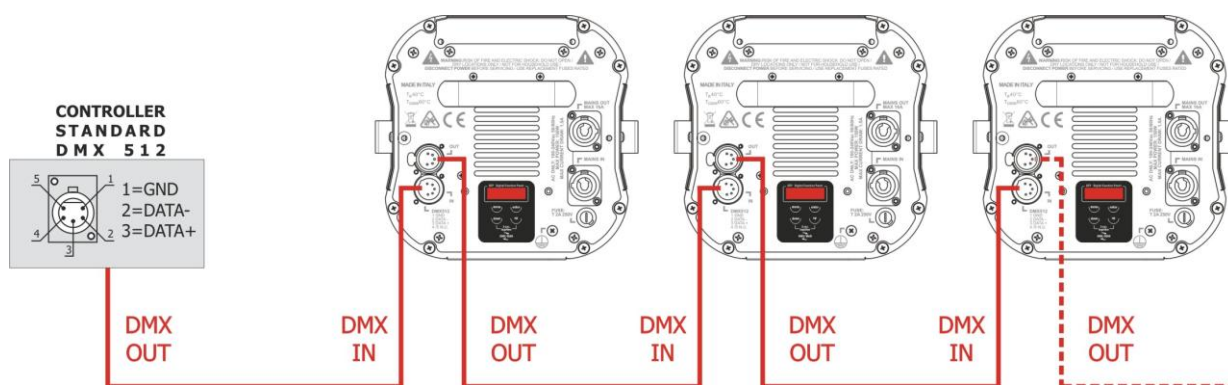
Connection between the controller and the unit or between units must be carried out using a two pair screened \varnothing 0.5 mm.

Ensure that the conductors do not touch each other.

Do not connect the cable ground to the DMX connector chassis.

The plug housing must be isolated. Connect the mixer signal to the DMX IN projector plug and connect it to the next projector by connecting the DMX OUT plug on the first unit to the DMX IN plug of the second one.

In this way, all the projectors are cascade connected.



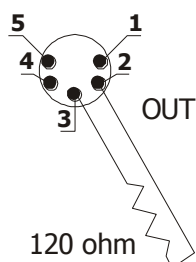
If the display showing the DMX address flashes, then one of the following errors has occurred:

- DMX signal not present
- DMX reception problem

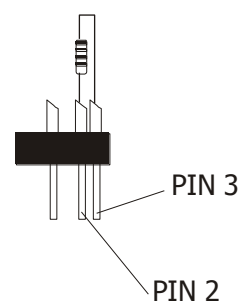
For Installations where long distance DMX cable connections are needed, we suggest to use a DMX terminator.

The DMX terminator is a male XLR 3-5 pins connector with a 120 ohm resistor Between pin 2 and 3.

The DMX terminator must be plugged into the last unit (DMX out panel connector) of the DMX line.



PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE XRL CONNECTOR AND PLUG IT INTO THE DMX OUT PANEL CONNECTOR OF THE LAST UNIT CONNECTED TO THE DMX LINE



9.1 DMX addresses

TEATRO LED SPOT 100 can be controlled with 6 DMX channels (Default) or 2 DMX channels.

In order to use the unit in 6 DMX channels mode (Default), set the following addresses on the mixer:

Projector 1 A001

Projector 2 A007

Projector 3 A013

..... A....

projector 6 A031

If you want to select the next projector, just add "6"

9.2 Selecting the DMX address

1) Press the UP-DOWN key until you reach the required DMX address. The numbers on the display will start to flash (but the new DMX address hasn't yet been set).

2) Press ENTER to confirm your selection. The numbers on the display will stop flashing and the projector is now controlled by the new DMX address.

TIPS: if you keep pushed the UP or DOWN keys, the channels are calculated more quickly and you get a faster selection.

10- FIRMWARE UPDATING

To update the firmware release of the TEATRO LED SPOT 100 you need:

- Dongle Firmware Uploader.
- “Firmware Upgrade Utility v.1.00” program installed on PC.
- Latest firmware release available for TEATRO LED SPOT 100 unit.

Updating the firmware release.

Please follow the procedure below to perform the update:

1. Connect the Dongle Firmware Uploader to a spare USB port on the PC.
2. Connect the unit DMX input to the Dongle Firmware Uploader DMX output with a standard DMX cable and turn ON the unit.
3. Send the new firmware release into the unit by using “Firmware Upgrade Utility v.1.00” program. At the end of the procedure, the unit will reset.

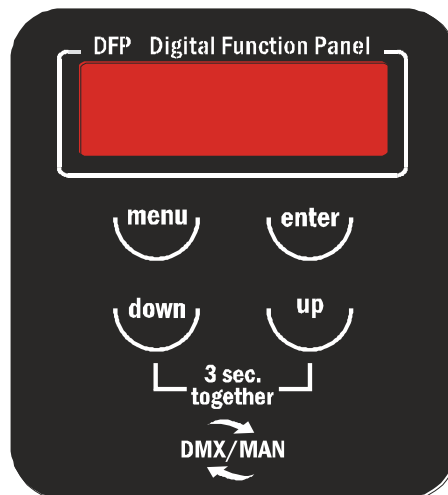
For more information please refer to an authorised Thomann service centre.

11- DISPLAY FUNCTIONS

The TEATRO LED SPOT 100 display panel shows all the available control menus.

Using these options, it is possible to change the fixture’s setting.

Changing the manufacturer settings can vary the functions of the unit so that it does not respond to the DMX 512 used to control it. Carefully follow the instructions below before carrying out any variations or selections.



MENU	<ul style="list-style-type: none"> • To access the control menus in the display panel. • To return to the previous level in the menu structure without making a change. • To exit the menus.
ENTER	<ul style="list-style-type: none"> • To select any required menu. • To confirm any changes.
UP / DOWN	<ul style="list-style-type: none"> • To navigate the menus structure. • To change any value.

FIRMWARE RELEASE	1.00
-------------------------	-------------

MAIN MENU	LEVEL 1	LEVEL 2	LEVEL 3	FUNCTION	
<i>DISP</i>	<i>Pos1</i>	<i>RR</i>		Display normal orientation for floor mounting position (Default)	
		<i>BB</i>		Display inverted orientation for suspended mounting position	
	<i>Stby</i>	<i>OFF</i>		Display always ON (Default)	
		<i>on</i>		Display goes OFF after 10 seconds	
<i>Mode</i>	<i>6 ch</i>			Allows to select 6 DMX channels mode (Default)	
	<i>2 ch</i>			Allows to select 2 DMX channels mode	
<i>LED</i>	<i>SMTH</i>	<i>OFF-20</i>		Allows to select the value of the delay (in milliseconds) for Dimmer channel reaction to DMX or Program variation. Off = Instant response to DMX variation. 4 = 100 ms Smooth response to DMX variation (Default) 20 = 500 ms Smooth response to DMX variation.	
			<i>comp</i>	<i>QuAD</i>	Allows to select Quadratic current for linear light output (Default)
				<i>LINE</i>	Allows to select Linear current output
	<i>Sync</i>	<i>610-200Hz</i>		Allows to adjust the PWM frequency value (Hz) in order to reduce flickering in the process of your camera recordings. Default = 610 Hz	
	<i>bst</i>	<i>on</i> <i>OFF</i>		Allows to increase the LED's current from 1470mA to 2100mA Default = ON	
	<i>Auto</i>	<i>SurE</i>			Automatic mode without DMX controller. In Auto mode the unit do generate DMX for slave units.
<i>dimm</i>			<i>0-255</i>	Dimmer level selectable by user as on DMX channel 2 (DIMMER) Default = 255	
<i>SHut</i>			<i>0-255</i>	Shutter level selectable by user as on DMX channel 1 (SHUTTER) Default = 15	
<i>zooM</i>			<i>0-255</i>	Zoom excursion from min to max as on DMX channel 5 (ZOOM) Default = 128	
<i>Esc</i>				Esc from automatic mode menu	
<i>SLAV</i>	<i>SurE</i>	<i>SLU</i>		Slave mode. The unit is forced to DMX address 1 and 6 DMX channels mode receiving signal from the unit set in Auto mode.	
		<i>Esc</i>		Esc from slave mode	
<i>FAn</i>	<i>Std</i>			Allows to select the internal fans speed. Standard mode: High fans speed. Silent mode: Low fans speed for a very low noise operation. Default = SIL	
	<i>SIL</i>				
<i>zooM</i>	<i>Std</i>			Allows to select the maximum zoom speed. Standard mode: Zoom max speed. Silent mode: Zoom medium speed for a very low noise operation. Default = SIL	
	<i>SIL</i>				

MAIN MENU	LEVEL 1	LEVEL 2	LEVEL 3	FUNCTION	
ndnH	LdnH			No DMX action. Keep last valid DMX signal (Default)	
	60			LED ON @ 60% (ZOOM @ 50%)	
	100			LED ON @ 100% (ZOOM @ 50%)	
	cUSt	dInn	0-255		Dimmer level selectable by user as on DMX channel 2 (DIMMER) Default = 255
		SHUt	0-255		Shutter level selectable by user as on DMX channel 1 (SHUTTER) Default = 15
		ZoOn	0-255		Zoom excursion from min to max as on DMX channel 5 (ZOOM) Default = 128
	oFF			Black-out	
rESE	on			Zoom motor startup reset enabled Default = ON	
	oFF			Zoom motor startup reset disabled (active only in Manual mode)	
	noU			Instant Zoom motor reset	
dFSE	SurE			To restore default settings	
tENP	LEd	025.0		LED temperature monitoring	
	dru	025.0		LED Driver board temperature monitoring	
tINE	LEd			Shows the total unit life time and LED life time	
	unit				
SoFt	v. 1.00			Software version	

12- MANUAL MODE

Manual mode can be activated by pressing at the same time 'UP' and 'DOWN' keys on unit display for 3 seconds (A001).

In Manual mode it is possible to select:

<i>dimm</i>	<i>0-255</i>	Dimmer level selectable by user as on DMX channel 2 (DIMMER). Default = 255
<i>SHut</i>	<i>0-255</i>	Shutter level selectable by user as on DMX channel 1 (SHUTTER). Default = 15
<i>Zoom</i>	<i>0-255</i>	Zoom excursion from min to max as on DMX channel 5 (ZOOM). Default = 128
<i>Esc</i>		Esc from Manual mode

When Manual mode is active, unit switch OFF/ON cycle will maintain Manual Mode selection.

In Manual mode the DMX signal is ignored.

13- ERROR MESSAGES

ERROR SHOWED ON DISPLAY	APPEARS WHEN
<i>SEnSor Error</i>	LED thermal sensor damaged (open or in short circuit). Unit immediately goes in black-out.
<i>LEd ovErTEmpERAturE</i>	LED temperature detected over 100°C. Unit immediately goes in black-out.
<i>Micro SEnSor Error</i>	LED Driver PCB thermal sensor damaged (open or in short circuit). Unit immediately goes in black-out.
<i>Micro ovErTEmpERAturE</i>	LED Driver PCB temperature detected over 100°C. Unit immediately goes in black-out.
<i>rESEt Error</i>	Zoom motor position error

14- DMX PROTOCOL**6 CHANNELS MODE (Default)**

- 1 SHUTTER**
- 2 DIMMER**
- 3 DIMMER FINE**
- 4 FUNCTIONS**
- 5 ZOOM**
- 6 RESET**

<i>Ch</i>	<i>Name</i>	<i>DMX levels</i>	
1	SHUTTER	0..9	Black-out
		10..19	Open
		20..29	Black-out
		30..119	Strobe (from 3,27 s to 30 ms)
		120..149	Pulse up (from 42,6 s to 120 ms)
		150..179	Pulse down (from 42,6 s to 120 ms)
		180..229	Random strobe
		230..235	Single flash 30 ms
		236..255	Open
2	DIMMER	0..255	Proportional dimmer from min to max
3	DIMMER FINE	0..255	Proportional dimmer from min to max
4	FUNCTIONS (staying on desired option for 5 seconds)	0..14	No function
		15..24	SMOOTH OFF
		25..26	SMOOTH 1 (25 ms)
		27..28	SMOOTH 2 (50 ms)
		29..30	SMOOTH 3 (75 ms)
		31..32	SMOOTH 4 (100 ms) (DEFAULT)
		33..34	SMOOTH 5 (125 ms)
		35..36	SMOOTH 6 (150 ms)
		37..38	SMOOTH 7 (175 ms)
		39..40	SMOOTH 8 (200 ms)
		41..42	SMOOTH 9 (225 ms)
		43..44	SMOOTH 10 (250 ms)
		45..46	SMOOTH 11 (275 ms)
		47..48	SMOOTH 12 (300 ms)
		49..50	SMOOTH 13 (325 ms)
		51..52	SMOOTH 14 (350 ms)
		53..54	SMOOTH 15 (375 ms)
		55..56	SMOOTH 16 (400 ms)
		57..58	SMOOTH 17 (425 ms)
		59..60	SMOOTH 18 (450 ms)
		61..62	SMOOTH 19 (475 ms)
63..64	SMOOTH 20 (500 ms)		
65..74	GAMMA CORRECTION (γ) QUADRATIC (DEFAULT)		
75..84	GAMMA CORRECTION (γ) LINEAR		

<i>Ch</i>	<i>Name</i>	<i>DMX levels</i>	
4	FUNCTIONS (staying on desired option for 5 seconds)	85..104	OUTPUT FREQUENCY 610 Hz (DEFAULT)
		105	OUTPUT FREQUENCY 800 Hz
		106	OUTPUT FREQUENCY 1000 Hz
		107	OUTPUT FREQUENCY 1500 Hz
		108	OUTPUT FREQUENCY 2000 Hz
		109	OUTPUT FREQUENCY 2500 Hz
		110	OUTPUT FREQUENCY 3000 Hz
		111	OUTPUT FREQUENCY 3500 Hz
		112	OUTPUT FREQUENCY 4000 Hz
		113	OUTPUT FREQUENCY 4500 Hz
		114	OUTPUT FREQUENCY 5000 Hz
		115	OUTPUT FREQUENCY 5500 Hz
		116	OUTPUT FREQUENCY 6000 Hz
		117	OUTPUT FREQUENCY 6500 Hz
		118	OUTPUT FREQUENCY 7000 Hz
		119	OUTPUT FREQUENCY 7500 Hz
		120	OUTPUT FREQUENCY 8000 Hz
		121	OUTPUT FREQUENCY 8500 Hz
		122	OUTPUT FREQUENCY 9000 Hz
		123	OUTPUT FREQUENCY 9500 Hz
		124	OUTPUT FREQUENCY 10000 Hz
		125	OUTPUT FREQUENCY 11000 Hz
		126	OUTPUT FREQUENCY 12000 Hz
		127	OUTPUT FREQUENCY 13000 Hz
		128	OUTPUT FREQUENCY 14000 Hz
		129	OUTPUT FREQUENCY 15000 Hz
		130	OUTPUT FREQUENCY 16000 Hz
		131	OUTPUT FREQUENCY 17000 Hz
		132	OUTPUT FREQUENCY 18000 Hz
		133	OUTPUT FREQUENCY 19000 Hz
		134	OUTPUT FREQUENCY 20000 Hz
		135..144	BOOST ON (DEFAULT)
		145..154	BOOST OFF
		155..164	DISPLAY STAND-BY OFF (DEFAULT)
		165..174	DISPLAY STAND-BY ON
		175..176	NO DMX ACTION – KEEP LAST DMX (DEFAULT)
		177..178	NO DMX ACTION – Black-out
		179..180	NO DMX ACTION – LED ON @ 100% (ZOOM @ 50%)
		181..182	NO DMX ACTION – LED ON @ 60% (ZOOM @ 50%)
		183..184	NO DMX ACTION – CUSTOM (active as per display menu > NDMX > CUST or via RDM Custom PIDs Default = Dimmer 255; Shutter 015; Zoom 128
		185..194	RESERVED
195..204	RESERVED		
205..214	RESERVED		
215..224	RESERVED		
225..234	RESERVED		
235..239	FAN STANDARD MODE		
240..244	FAN SILENT MODE (DEFAULT)		
245..248	ZOOM STANDARD MODE		
249..252	ZOOM SILENT MODE (DEFAULT)		
253..255	SET DEFAULTS VALUES FOR FUNCTIONS: SMOOTH = 4 (100 ms) GAMMA CORRECTION = QUADRATIC OUTPUT FREQUENCY = 610 Hz BOOST = ON DISPLAY STAND-BY = OFF NO DMX ACTION = KEEP LAST DMX FAN MODE = SILENT ZOOM MODE = SILENT		

<i>Ch</i>	<i>Name</i>	<i>DMX levels</i>	
5	ZOOM	0..255	Linear zoom from narrow to wide
6	RESET	0..15	No function
		16..255	Zoom reset (after 3 sec.)

2 CHANNELS MODE

1 DIMMER

2 ZOOM

<i>Ch</i>	<i>Name</i>	<i>DMX levels</i>	
1	DIMMER	0..255	Proportional dimmer from min to max
2	ZOOM	0..255	Linear zoom from narrow to wide

NOTES

NOTES

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ignition