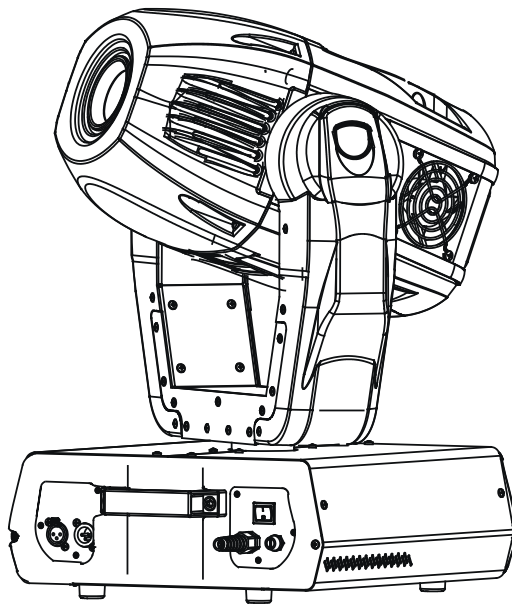




# ClubSpot 500<sup>CT</sup>



**USER MANUAL**

Version 1.1



# Club Spot 500<sup>CT</sup>

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**CAUTION! Keep this device away from rain and moisture!  
Unplug mains lead before opening the housing!**

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY  
BEFORE YOU INITIAL START - UP!**

## 1. Safety instructions

Every person involved with installation and maintenance of this device have to:

- be qualified
- follow the instructions of this manual

**CAUTION! Be careful with your operations. With a high voltage you can suffer a dangerous electric shock when touching the wires!**

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

### **Important:**

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!

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

Always plug in the power plug least. Make sure that the power-switch is set to off -position before you connect the device to the mains. The power-plug has to be accessible after installing the device.

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

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.

This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.

The electric connection, repairs and servicing must be carried out by a qualified employee.  
Do not connect this device to a dimmer pack.

Do not switch the fixture on and off in short intervals as this would reduce the lamp's life.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Do not touch the device's housing bare hands during its operation (housing becomes hot)!  
For replacement use lamps and fuses of same type and rating only.

**CAUTION ! EYEDAMAGES !  
Avoid looking directly into the light source (meant especially for epileptics) !**

## 2. Operating determinations

This device is a moving-head spot for creating decorative effects and was designed for indoor use only.

If the device 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.

Never run the device without lamp!

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

Never lift the fixture by holding it at the projector-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.

When choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

The minimum distance between light-output and the illuminated surface must be more than 2 meters.

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

Always fix the fixture with an appropriate safety-rope. Fix the safety-rope at the correct holes only.

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

The lamp must never be ignited if the objective-lens or any housing-cover is open, as discharge lamps may explode and emit a high ultraviolet radiation, which may cause burns.

The maximum ambient temperature 40° C must never be exceeded. Otherwise, the lamp is switched off and the fixture is out of operation for 5 minutes.

**CAUTION!** *The lens has to be replaced when it is obviously damaged, so that its function is impaired, e. g. due to cracks or deep scratches!*

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!

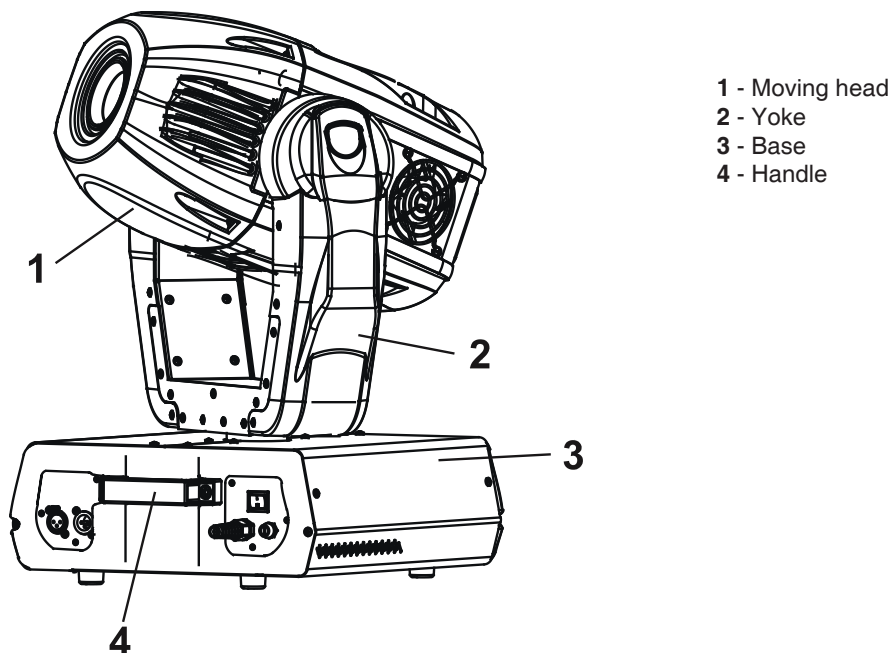
**CAUTION!** *The lamp has to be replaced when it is damaged or deformed due to the heat!*

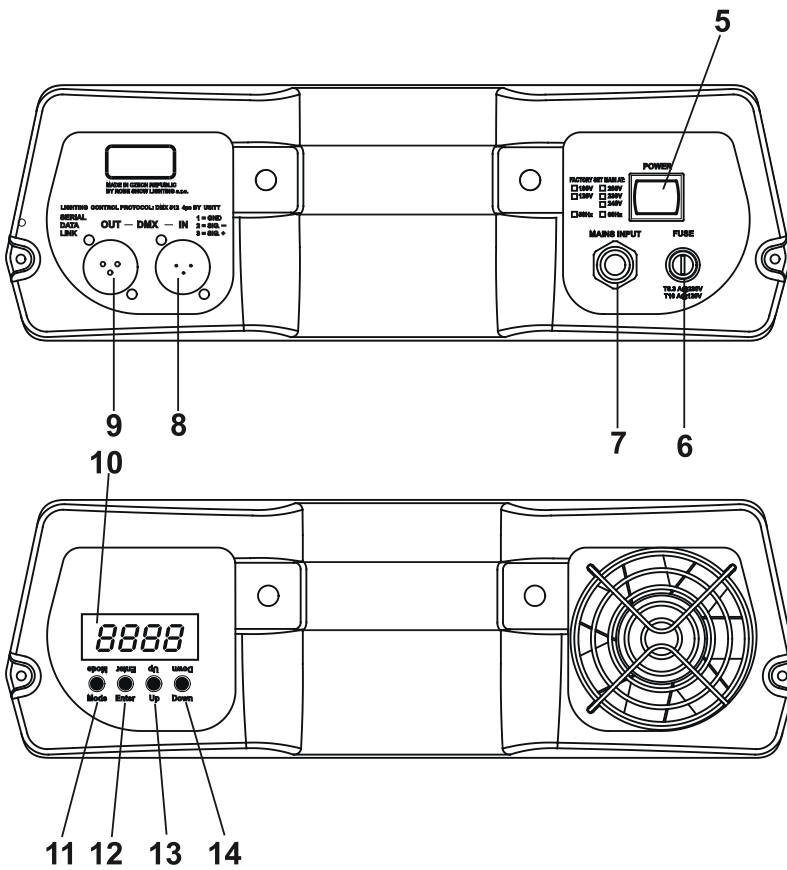
Please use the original packaging if the device is to be transported.

Please consider that unauthorized modifications on the device 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, burns due to ultraviolet radiation, lamp explosion, crash etc.

### 3. Description of the device





**Rear panel of the base**

- 5 - Power switch
- 6 - Fuse holder
- 7 - Power cord
- 8 - DMX input
- 9 - DMX output

**Front panel of the base**

- 10 - Display
- 11 - Mode-button
- 12 - Enter-button
- 13 - Up-button
- 14 - Down-button

## 4. Installation

### 4.1 Fitting the lamp

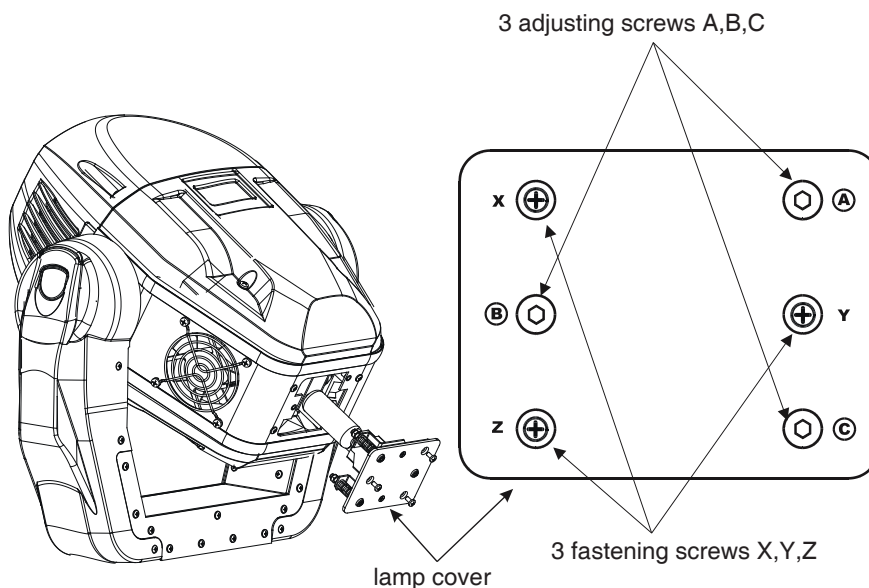
**DANGER ! Install the lamps with the device switched off only. Unplug from mains before !**

To insert the lamp MSR 575/2 loosen the lamp cover at the rear of head (see the drawings ) by removing the 3 fastening screws which are marked „X,Y,Z”. Carefully pull out the cover with the lamp socket assembly. If changing the lamp, remove the old lamp from the socket. Insert the lamp to the socket.

Do not install a lamp with a higher wattage! A lamp like this generates temperatures the device is not designed for. Damages caused by non-observance are not subject to warranty. Please follow the lamp manufacturer’s notes! Do not touch the glass-bulb with bare hands during the installation! Make sure that the lamp is installed tightly into the lampholder system.

Reclose the lamp cover and tighten the 3 screws.

Before striking the lamp, reset the “LAti” and “LAsT” counter s in the menu of the Control Board, by pressing the “Up” and “Down” buttons in one time and then confirming with the **Enter**-button.



**Do not operate this fixture with open housing-cover!**

### 4.2 Lamp adjustment

The ClubSpot 500 CT lamp holder is aligned at the factory. Due to differences between lamps, fine adjustment may improve light performance.

Strike the lamp, open the shutter and set the dimmer intensity onto 100% and focus the light on a flat surface (wall). Center a hot-spot (the brightest part of the image) by using the 3 adjustment screws „A, B, C”. Turn one screw after another a quarter-turn clockwise (counter-clockwise) to set the hot-spot in the center of the image. If you cannot detect the hot-spot, adjust the lamp until the light is evenly distributed.

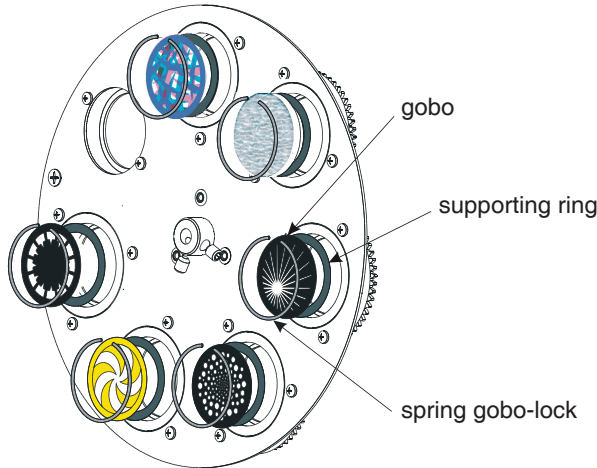
### 4.3 Inserting / Exchanging gobos

**DANGER! Install the gobos with the device switched off only. Unplug from mains before!**

Turn off the lamp and allow it to cool for at least 10 minutes. Disconnect the fixture from power.

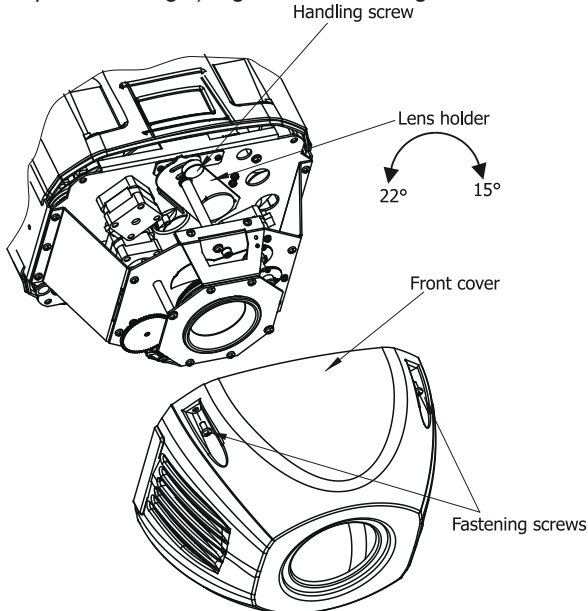
Open the top cover of the moving head by loosening the 2 quarter-turn fasteners on the top cover and follow the instructions below:

1. Use an appropriate tool (e.g. screwdriver with narrow tip) to pull out the spring gobo-lock.
2. Caution remove the gobo and supporting ring from gobo holder.
3. Insert the supporting ring and the new gobo (black side towards the objective) back to the gobo holder.
4. Insert the spring gobo-lock into gobo holder to fasten the new gobo.



### 4.4 Manual zoom

The Clubspot 500 CT has manually adjustable zoom 15° or 22°. To change the zoom, remove the front cover by unscrewing the 4 fastening screws. Loosen the handling screw and move the lens holder into desired position as shown on the picture below (lens inserted in beam path=22° angle). Tighten the handling screw to fix lens holder in desired position and put the front cover back.



## 4.5 Connection to the mains

**Verify the power supply settings before applying power!**


If you wish to change the power supply settings, see the chapter below.

Connect the fixture to the mains with the enclosed power plug. If you need to install other power plug on the power cable, follow the identification table below.

The earth has to be connected!

**Do not connect the fixture to a dimmer system!**

The occupation of the connection-cables is as follows:

Cable (EU)	Cable (US)	Pin	International
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/ Green	Green	Earth	

## 4.6 Changing the power supply settings

Both the transformer and the ballast must be connected correctly for the local AC voltage and frequency.

The wrong settings can cause poor performance or damage of the moving head. The factory settings are printed next to the power switch.

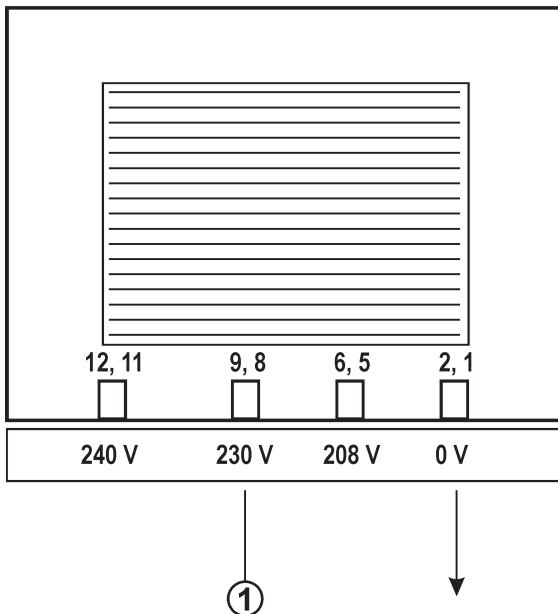
**If you want to change the power supply settings, follow the instructions:**

1. Disconnect the fixture from AC power.
2. Remove the top base covers by unscrewing 9 screws on each cover.
3. Move the wire (1) on the transformer connection block to the position according to the desired voltage.
4. Move the wires (2) and (3) on the ballast connection block to the position according to the desired frequency (voltage).
5. Close the base before applying AC power.

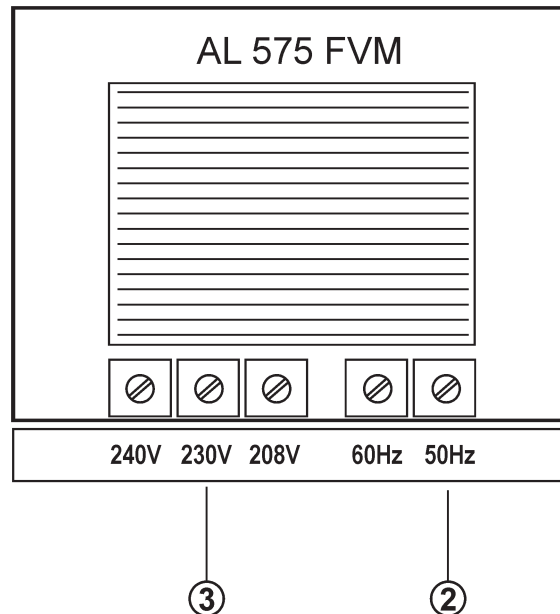
**Examples:**

**Power supply settings: 230V / 50Hz**

### Transformer

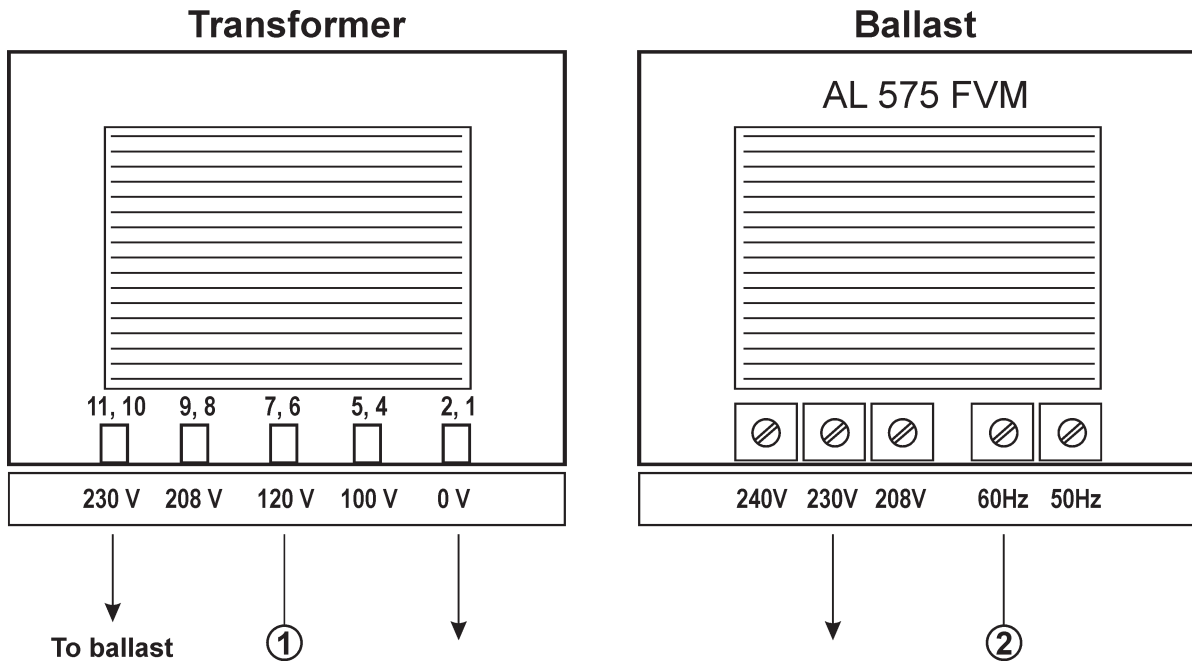


### Ballast





Power supply settings: 120V / 60Hz



#### 4.7 Rigging the fixture

***DANGER TO LIFE!***

***Please consider the respective national norms during the installation!  
The installation must only be carried out by an authorized dealer!***

The installation of the projector 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, derigging 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 projector 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 and/or damage to property.

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

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

**Caution:** Projectors may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the projector!

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

**Danger of fire !** When installing the device, make sure there is no highly inflammable material (decoration articles, etc.) in a distance of min. 0.5 m.

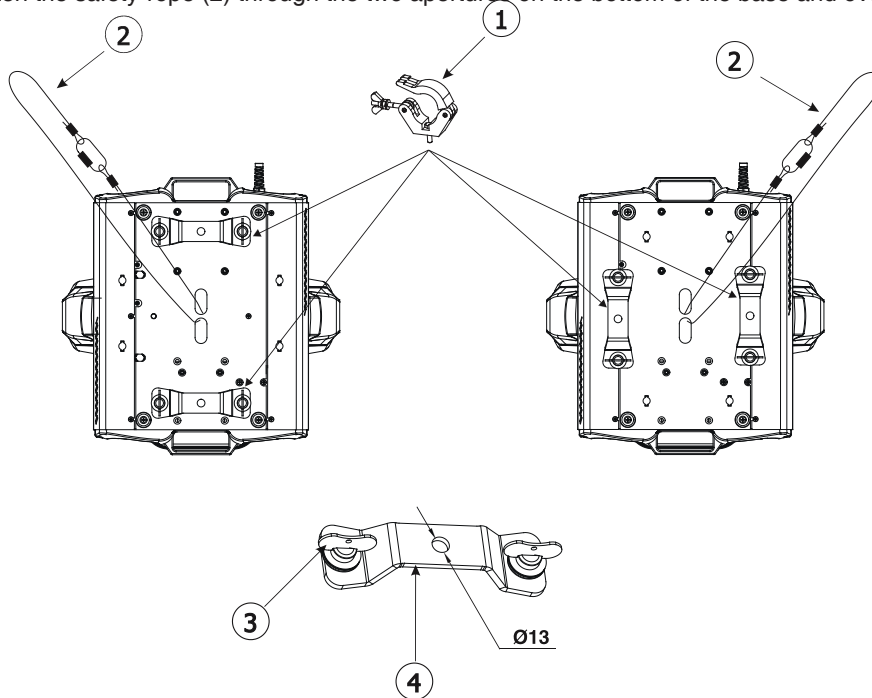
**Warning !** Use 2 clamps to rig the fixture on the truss. Follow the instructions mentioned at the bottom of the base. Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure.

The projector can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics.

For overhead use, always install a safety-rope that can hold at least 10 times the weight of the fixture. You must only use safety-ropes with screw-on carabines. Pull the safety-rope through the two apertures on the bottom of the base and over the trussing system etc. Insert the end in the carabine and tighten the fixation screw.

### Fixation via the omega holders

1. Bolt each clamp (1) to the omega holder (4) with M12 bolt and lock nut through the hole in the holder.
2. Fasten the omega holders on the bottom of the base by inserting both quick-lock fasteners (3) into the holes of the base and tighten fully clockwise.
3. Fasten the safety-rope (2) through the two apertures on the bottom of the base and over the trussing system.



**When installing fixtures side-by-side, avoid illuminating one fixture with another!**

**Before taking into operation for the first time, the installation has to be approved by an expert!**

### 4.8 DMX-512 connection/connection between fixtures

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

#### DMX - output

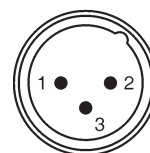
XLR mounting-socket (rear view):



- 1 - Shield
- 2 - Signal (-)
- 3 - Signal (+)

#### DMX-input

XLR mounting-plug (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 to connect DMX-controllers with other XLR-outputs, you need to use adapter-cables.

### Building a serial DMX-chain:

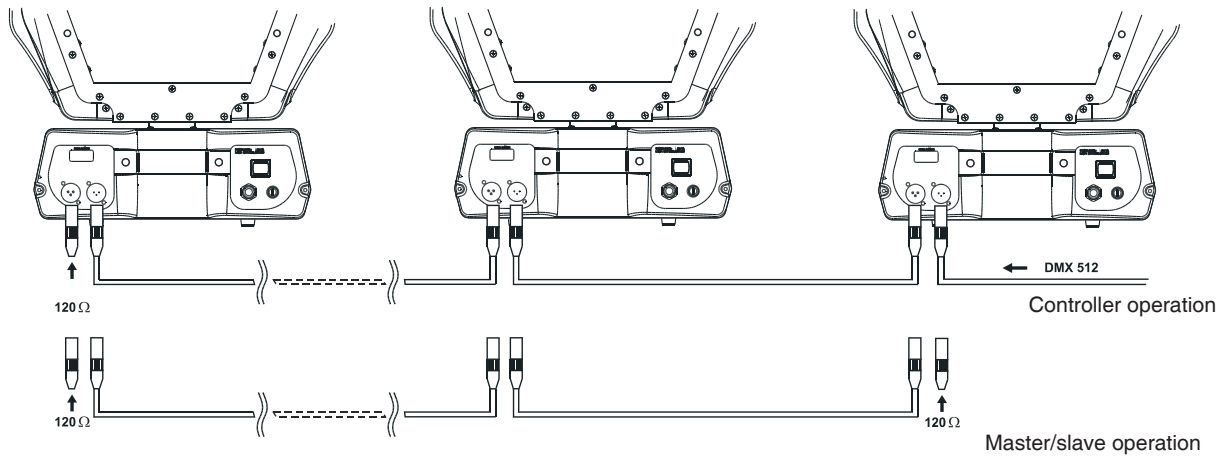
Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture until all fixtures are connected.

**Caution:** At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ohm resistor between Signal (-) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

### Building a master/slave-chain:

Connect the DMX-output of the master fixture in the data-chain with the DMX-input of the first slave. Always connect output with the input of the next slave until all slaves are connected (up to 9 fixtures).

**Caution:** It's necessary to insert the XLR termination plug (with 120 Ohm) into the input of the master fixture and into the output of the last slave fixture in the link in order to ensure proper transmission on the data link.



## 5. DMX protocol - version 1.0

Mode/Channel				Function	Type of control
Mod1	Mod2	8bit	Value		
1	1	1	0 - 255	<b>Pan</b> Pan movement by 530°	proportional
3	2		0 - 255	<b>Pan Fine</b> Fine control of pan movement	proportional
2	3	2	0 - 255	<b>Tilt</b> Tilt movement by 280°	proportional
4	4		0 - 255	<b>Tilt fine</b> Fine control of tilt movement	proportional
5	5	3	0	<b>Speed of Pan/Tilt movement</b> Max. speed (tracking mode)	step
			1-249	From max. speed to min.speed (vector mode)	proportional
			250-252	Max.speed (tracking mode),black-out while colour wheel moving or gobo changing	step
			253-255	Max.speed (vector mode),black-out while colour wheel or pan/tilt moving or gobo changing	step
6	6	4	0 - 127	<b>Fans speed control,Lamp on/off,reset</b> Fans speed from max.to min.	proportional
			128-139	Lamp ON,reset	step
			140-229	No function	step
			230-239	Lamp OFF after 3 sec.	step
			240 - 255	No function	step
7	7	5	0	<b>Colour wheel 1</b> <i>Continual Positioning</i> Open/white	proportional
			13	Light blue	proportional
			26	Red	proportional
			38	Blue	proportional
			51	Light green	proportional
			64	Yellow	proportional
			77	Magenta	proportional
			90	Cyan	proportional
			102	Green	proportional
			115	Orange	proportional
128-189	Forwards rainbow effect from fast to slow	proportional			
190-193	No rotation	step			
194-255	Backwards rainbow effect from slow to fast	proportional			
8	8	6	0	<b>Prism</b> Open position (hole)	step
			1-63	Forwards rotation from fast to slow	proportional
			64	No rotation	step
			65-127	Backwards rotation from slow to fast	proportional
				<i>Prism/gobo macros</i>	
			128-135	Macro 1	step
			136-143	Macro 2	step
			144-151	Macro 3	step
			152-159	Macro 4	step
			160-167	Macro 5	step
			68-175	Macro 6	step
			176-183	Macro 7	step
			184-191	Macro 8	step
			192-199	Macro 9	step
			200-207	Macro 10	step
			208-215	Macro 11	step
			216-223	Macro 12	step
224-231	Macro 13	step			
232-239	Macro 14	step			
240-247	Macro 15	step			
248-255	Macro 16	step			

Mode/Channel			Value	Function	Type of control
Mod1	Mod2	8bit			
9	9	7	0 - 31	<b>Rotating gobos</b> Open/hole	step
			32-63	Rot.gobo 1(multicolour dichroic)	step
			64-95	Rot.gobo 2	step
			96-127	Rot.gobo 3	step
			128-159	Rot.gobo 4	step
			160-191	Rot.gobo 5 (dichroic)	step
			192-223	Rot.gobo 6	step
			224-255	Rot. gobo wheel cont. rotation from slow to fast	proportional
10	10	8	0-127	<b>Rotating gobo indexing and rotation</b> Gobo indexing	proportional
			128-190	Forwards gobo rotation from fast to slow	proportional
			191-192	No rotation	step
			193-255	Backwards gobo rotation from slow to fast	proportional
11	11	9	0-255	<b>Focus</b> Continuous adjustment from far to near	proportional
12	12	10	0-31	<b>Shutter,stroke</b> Shutter closed	step
			32-63	Shutter open	step
			64-95	Strobe-effect from slow to fast	proportional
			96-127	Shutter open	step
			128-143	Closing pulses from slow to fast	proportional
			144-159	Opening pulses from fast to slow	proportional
			160-191	No function	step
			192-223	Random strobe -effect from slow to fast	proportional
			224-255	Shutter open	step
13	13	11	0 - 255	<b>Dimmer intensity</b> Closed to open	proportional

## 6. Controller mode

The fixtures are individually addressed on a data link and connected to the controller. The fixtures respond to the DMX signal from the controller.

### 6.1 DMX addressing

The control panel on the front panel of the fixture allows you to assign the DMX fixture address, which is defined as the first channel from which the ClubSpot 500 CT will respond to the controller.

If you set, for example, the address to channel 14, the ClubSpot 500 CT will use the channel 14 to 26 for control (if mode 1 is selected).

Please, be sure that you don't have any overlapping channels in order to control each ClubSpot 500 CT correctly and independently from any other fixture on the DMX data link.

If two, three or more ClubSpot 500 CT are addressed the same, they will work parallelly.

For address setting, please refer to the instructions under „Addressing” (menu „A001”).

#### Controlling:

After having addressed all ClubSpot 500 CT, you may now start operating these via your lighting controller.

**Note:** After switching on, the ClubSpot 500 CT will automatically detect whether DMX 512 data is received or not.

If there is no data received at the DMX-input, the display will start to flash „A001” with actually set 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 ClubSpot 500 CT
- the controller is switched off or defective, the cable or connector is defective or the signal wires are swapped in the input connector.

**Note:** It's necessary to insert the XLR termination plug (with 120 Ohm) to the last fixture in the link in order to ensure proper transmission on the DMX data link.

### 6.2 Remotely controllable functions

#### Lamp

The ClubSpot 500 CT is to be operated with a Philips MSR 575/2 or Osram HSR 575/2.

A relay inside of the ClubSpot 500 CT allows you to switch on and off the lamp via the control panel or via your DMX-controller without affecting the rest of the lighting.

To switch On/Off the lamp, please refer to „Switching On/Off the lamp“ (menu „LAMP”).

**Note:** It is also important to note, that the discharge lamp is cold restrike types, that means, that they have to be cold before re-striking. For this reason, you have to wait 5 minutes (max. speed of fan must be adjusted) after having switched Off the lamp before you can switch it back „On” again. If you try to switch „On” the lamp within 5 minutes after having switched it „Off”, the ClubSpot 500 CT will store this information and automatically ignites the lamp when the 5 minutes period has expired. The message „HEAT” will appear on the control panel display of the ClubSpot 500 CT. If the ignition of the lamp is seven times unsuccessful, on the display will appear „LA.Er”, meaning that the lamp could be damaged or even missed, or there could be a failure on the ignitor or ballast.

#### Colour wheel

This wheel contains 9 dichroic filters + open. It is also possible to rotate the colour wheel continuously at different speeds ("Rainbow effect" in both directions).

#### Rotating gobo wheel

The rotating gobo wheel includes 6 glass gobos (one effect-glass, one dichroic, one multicolour and 3 black and white gobos rotating in both directions, indexable and interchangeable).

#### 3-facet rotating prism

The 3-facet prism rotating in both directions at different speeds, 16 prism-gobo macros

#### Focus

Motorized focus enables the beam to be focused anywhere on the stage.

#### Dimmer/Shutter/Strobe

Smooth 0 - 100 % dimming is provided by the combined mechanical dimmer/shutter unit. This unit may also be used for strobe effect (1 - 10 flashes per second)

## 7. Stand - alone mode

The fixtures on a data link are not connected to the controller but can execute pre-set programs which can be different for every fixture. To set the program to be played, see the „Stand-alone setting” (menu „St.AL.”).

„Stand-alone operation” can be applied to the single fixture (the fixture may be set to the master /slave mode or controller mode) or to multiple fixtures operating synchronously.

Synchronous operation of multiple fixtures requires that they must be connected on a data link and one of them is set as a master (master mode) and the rest as the slaves (slave mode). The slaves are assigned to SLA1-SLA9 and on the certain slave address can be connected only one fixture. To set the fixture as the master or slave, see the „Addressing” (menu „A001”).

**If the master fixture runs a reset, switches On/Off the lamp or plays test (program), all slaves will execute these acts too (e.g. if the master fixture has switched the lamp off, no slave can switch the lamp on)!**

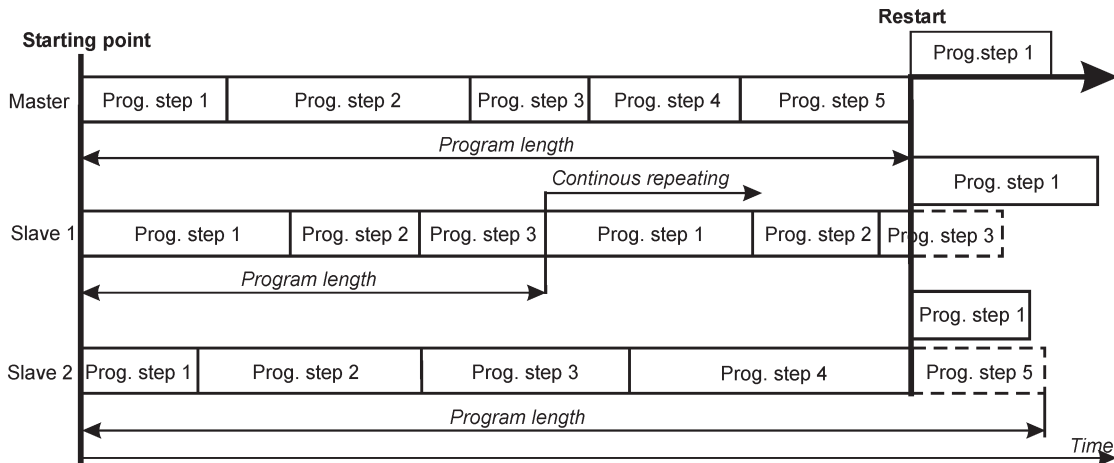
The master fixture starts simultaneous program start in the other slave fixtures. All fixtures have a definite, synchronized starting point when playing back their programs. The number of running program is the same in all slaves and depends on the master’s choice (menu „St.AL.”). Every fixture runs its program repeatedly, starting the program step No.1 when requested by the master.

**For example:**

If the slave fixture has a shorter program length, it will continuously repeat its program until the master fixture finishes its own program and restarts its program running (slave 1- prog.step 3 will not be finished).

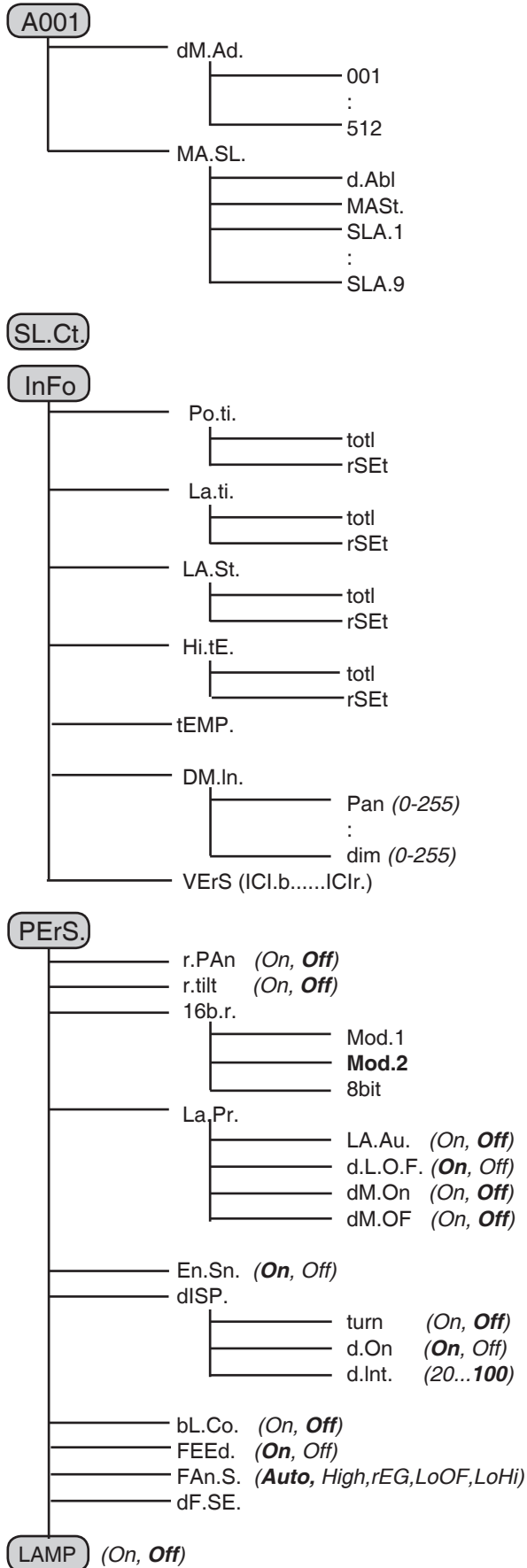
If the slave fixture has a longer program length, it will restart at prog. step 1 before it completes all its prog. steps (slave 2 - prog. step 5 will not be played) - see the picture bellow.

**Note:** Disconnect the fixtures from the DMX controller before master/slave operating, otherwise data collisions can occur and the fixtures will not work properly!



## 8. Control menu map

Default settings = **Bold print**





tESt

Mod.1  
Mod.2

St.AL.

Auto.  
Off  
tESt  
PrG.1  
PrG.2  
PrG.3

PLAY  
tESt  
PrG.1  
PrG.2  
PrG.3

Edit  
PrG.1  
PrG.2  
PrG.3

St.01  
:  
St.99  
PAn (0-255)  
:  
S.tim. (0.1-25.5) (s)  
COPY

rESE

SPEC

MAnu.  
PAn (Pan.1...Pan.3)  
:  
dimr (dim.0...dim.C.)

LA.Ad.  
PAn (0-255)  
tilt (0-255)  
Foc. (0-255)

CodE

AdJ.  
PAn  
:  
F.CAL  
Colo. (0-255)  
:  
dimr (0-255)  
A.rES.

UPd.M.

## 9. Control menu

The control panel situated on the front panel of the base offers several features. You can simply set the DMX address, read the number of the lamp or unit hours, switch On and Off the lamp, run test, make a reset and also use many functions for setting fixture behaviour.

### Control elements on the control board:

[MODE] button-leaves menu without saving changes.

[ENTER] button- enters menu, confirms adjusted values and leaves menu.

[UP] button and [DOWN] button- moves between menu items on the the same level, sets values.

After switching the fixture on, the display shows the initial screen:



Use [UP], [DOWN] to browse through the menu. To select a function or submenu, press [ENTER].

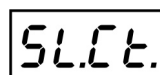


### 9.1 Fixture Address

Use this menu to set the DMX address of the fixture or set the fixture as a Master (Slave).

**DM.Ad.** - **DMX addressing.** Select this submenu to set DMX start address.

**MA.SL.** - **Master/slave addressing.** Select this submenu to set the fixture as a Master or Slave (Slave1- Slave 9).  
Option „d.AbL” deactivates master/slave setting.



### 9.2 Slave control

This function allows you to control the slaves from the master’s control panel in a master/slave operation.

Select this function from the main menu and press [ENTER]. Browse the list of all connected slaves („SL.C.1” - „SL.C.9”) by pressing [UP] or [DOWN]. Select the desired slave and press [ENTER]-button.The matching slave control panel is available from the master control panel.

**Note:** This function is available from the master fixture only.



### 9.3 Fixture informations

Use this menu to read an useful information about the fixture.

**Po.ti.** - **Power on time.** Select this submenu to read the number of operation hours.

**totL** - The function shows the total number of the operation hours since the ClubSpot 500 CT has been fabricated.

**rSEt** - The function shows the number of the operation hours that the ClubSpot 500 CT has been powered on since the counter was last reset. In order to reset this counter to 0 you have to hold [UP] and [DOWN] and press the [ENTER].

**La.ti.** - **Lamp on time.** Select this submenu to read the number of the operation hours with the lamp on.

**totL** - The function shows the total number of the operation hours with the lamp on since the ClubSpot 500 CT has been fabricated.

**rSEt** - The function shows the number of the operation hours with the lamp on that the ClubSpot 500 CT has been powered on since the counter was last reset. In order to reset this counter to 0 you have to hold [UP] and [DOWN] and press the [ENTER].

**LA.St.** - **Lamp strikes.** Select this submenu to read the total number of the lamp strikes.

**totL** - The function shows the total number of the lamp strikes since the ClubSpot 500 CT has been fabricated.

**rSEt** - The function shows the number of the lamp strikes since the counter was last reset. In order to reset this counter to 0 you have to hold [UP] and [DOWN] and press the [ENTER].

**tEMP** - Current temperature of the head inside. Temperatures below 80°C are not critical. 80° C and more lead to the lamp being switched off.

**Hi.tE.** - **Maximum fixture temperatures.**

**totL** - The function shows the max. temperature in the head inside since the ClubSpot 500 CT has been fabricated.

**rSEt** - The function shows the max.temperature of the head inside since the since the counter was last reset. In order to reset this counter to 0 you have to hold [UP] and [DOWN] and press the [ENTER].

**DM.in.** - **Readout of DMX values.** Select this function to read DMX values (0-255) of each channel received by the fixture.

**PAn** a coarse pan movement

**F.PAn** a fine pan movement

**tilt** a coarse tilt movement

**G.rot.** a gobo indexing and rotation

**Pris.** a prism

**Foc.** a focus

<b>F.tilt</b>	a fine tilt movement	<b>Stro.</b>	a shutter, strobe
<b>SpEd</b>	a pan/tilt speed	<b>dimr</b>	a dimmer
<b>Func.</b>	a special function		
<b>Colo.</b>	a colour wheel		
<b>r.Gob.</b>	a rotating gobo wheel		

**VErS.** - **Software version.** Select this function to read the software version of processors:

**C1.b.** - Main processor on the main board in the fixture base

**IC2.b.** - Pan processor on the main board in the fixture base

**IC3.b.** - Tilt processor on the main board in the fixture base

**IC1.L.** - Processor 1 in the left arm of the fixture

**IC1.r.** - Processor 1 in the right arm of the fixture



## 9.4 Personality

Use this menu to modify ClubSpot 500 CT operating behavior.

**r.PAn** - **Pan reverse.** Select this function to invert the pan movement.

**r.tilt** - **Tilt reverse.** Select this function to invert the tilt movement.

**16br.** - **16 bit resolution.** Select this function to set desired effects assigning to the channels. Please refer to the chapter „DMX protocol” for detail description.

**LA.Pr.** - **Lamp presetting.** Select this menu to change the lamp „behaviour”.

**LA.Au.** - Select this function to turn the lamp on automatically after switching the fixture on.

**d.L.OF.** - Select this function to switch off the lamp via DMX.

**dM.On** - This function allows you to strike the lamp automatically after 26 seconds if DMX signal is present on the data link. If the ignition is unsuccessful (e.g. lamp is too hot), the fixture will try to ignite the lamp after next 26 s. This process will repeat until the lamp lights.

**dM.OF.** - This function allows you to switch Off the lamp automatically after 2 minutes if DMX signal is missing on the data link.

**En.Sn.** - **Switching on/of the lamp light sensor.** Select this function to switch the lamp light sensor on or off. The option „On” is for the standard operation.

**Important:** The option „Off” is for „emergency operation” only if the lamp light sensor is defective and you will wait for a service intervention! If the lamp light sensor is switched off and at switching the lamp on the electronics will still try to ignite the lamp until it shines (even when the lamp is damaged or absent), on this account some electronics parts could be damaged!

**diSP.** - **Display adjusting.** This function allows you to change the display settings.

**turn** - Select this function to turn the display by 180°.

**d.On** - This function allows you to keep the display on or to turn off automatically 2 minutes after last pressing any button on the control panel.

**d.Int.** - Select this function to adjust the display intensity (20-min., 100-max.).

**bL.Co.** - **Blackout during movement correction.** Select this function to enable the blackout during the head movement correction (if the moving head lost its right pan/tilt position for a short moment).

**FEEd** - **Pan/Tilt feedback.** This function allows to return the moving head to the required pan/tilt position after changing the position by external force (e.g. by stroke).

**Be careful, the Pan/Tilt Feedback OFF is not the standard operation and the head of the fixture can be damaged!**

**Note:** If the feedback was switched off, the pan/tilt-position is changed by an external force and the feedback is switched on again, the moving head might not be synchronized with the DMX signal. You have to make a reset in order to synchronize the moving head with the DMX signal.

**Fan.S.** - **Fan speed operating modes.** By using this function you can choose 5 types of the fan speed operating modes.

**Auto** - The fans automatically raise their speed in order to control inside temperature of the head, if the temperature inside increases about certain level (the low fan speed reduces the cooling of the lighting). This cycle can repeat several times until the temperature inside is on a suitable level.

**HIGH** - The cooling fans work on max. speed (max. cooling). This mode we recommend for high ambient temperature (30°C and more).

**rEG** - This mode is the same as a **Auto** but the the bottom level of fans speed can be adjusted by DMX (channel 6)

**LoOF** - The fans keep the adjusted low speed until the temperature exceeds max. inside temperature of the fixture, then the ClubSpot 500 CT automatically switches off the lamp.

**LoHi** - The fans keep the adjusted low speed until the temperature exceeds max. inside temperature of the fixture, then the ClubSpot 500 CT automatically switches from low to high the fan speed.

**dF.SE. - Default Settings.** Select this option to reset all fixture personalities to the default values.



## 9.5 Lamp On/Off

Use this option in order to switch on/off the lamp. It is also important to note, that the lamp is cold restrike type that means that it has to be cold before striking.



## 9.6 Test sequences

Use this menu to run a special demo-test sequences without an external controller, which will show you some possibilities of using ClubSpot 500 CT.

**Mod. 1 - Mode 1.** This mode is suitable for projections on the wall, ceiling or ground without any head movement.

**Mod. 2 - Mode 2.** This mode uses all ClubSpot 500 CT functions including pan/tilt movement and therefore is good for a complete introduction of the fixture.



## 9.7 Stand-alone setting

Use this menu to set options for stand-alone mode as a selection of the playing program, programming and modifying current programs.

**Auto - Presetting playback.** This function allows you to select the program which will be played in the stand-alone mode after switching the fixture on. Selected program will be played continuously in a loop.

**d.Abl** - The option disables „Auto” function.

**tEst** - The option will start built-in test program.

**PrG. 1** - The option will start created program No. 1

**PrG. 2** - The option will start created program No. 2

**PrG. 3** - The option will start created program No. 3

**Note:** If the fixture operates in the controller mode (DMX controller is connected) and any program from this menu is selected, in this case the fixture will not respond to the DMX controller after switching on and will play selected program.

**PLAY - Playing program.** Select this menu to run a built-in program or the 3 freely-programmable programs in a loop.

**tEst** - The option starts built-in test program.

**PrG.1** - The option starts created program No. 1

**PrG.2** - The option starts created program No. 2

**PrG. 2** - The option starts created program No. 3

Select the program you wish and press **[ENTER]**. The selected program starts running. By Pressing **[ENTER]** again is possible to pause the program running.

**Edit - Editing program.** Select this menu to edit or create the program. The ClubSpot 500 CT has one built-in program and the 3 free programs, each up to 99 steps. Each program step has a step time. Step time-the time, during which effects last in the current step.

If the fixture is set as a master, then you may edit any program in the slaves. You can't edit programs on the slave fixtures from their control panels if the master fixture is switched on and connected to the slaves (editing is possible by the master control panel only).

### Procedure:

1. Press **[UP]** or **[DOWN]** to select the program you want to edit („PrG.1” - „PrG.3”) and press **[ENTER]**.
2. Press **[UP]** or **[DOWN]** to select the desired fixture („MASt.” - „SLA.9”) and press **[ENTER]**-button.
3. Press **[UP]** or **[DOWN]** to select the desired program step (“St.01” - “St.99”) and press **[ENTER]**-button.
4. Press **[UP]** or **[DOWN]** to select the desired item and press **[ENTER]**-button. Now you can edit by **[UP]** or **[DOWN]** buttons the DMX value (0-255) for selected item:

**P.End.** a total number of the program steps (value 1-99). **This value you must set before start programming** (e.g. if you want to create program with the 10 steps, set P.End=10).

**PA**n a coarse pan movement

**F.PA**n a fine pan movement

**tilt** a coarse tilt movement

**F.tilt** a fine tilt movement

**SpEd** a pan/tilt speed

**Func.** a special function

**Colo.** a colour wheel

**r.Gob.** a rotating gobo wheel

**S.tim.** a step time, value 0.1-25.5 seconds

**COPY.** a copying the current prog. step to the next prog. step. If the last prog. step is copied to the next prog.step, parameter „P.End” is increased about one by itself (except step 99).

**G.rot.** a gobo indexing and rotation

**Pris.** a prism

**Foc.** a focus

**Stro.** a shutter, strobe

**dimr** a dimmer

5. Press **[ENTER]**-button to confirm adjusted value .

6. Press [MODE]-button, select next prog. step and repeat this procedure (steps 4 - 6).



## 9.8 Reset functions

This option enables the ClubSpot 500 CT to index all effects (functions) and return to their standard positions.



## 9.9 Special functions

Use this menu for special services like adjusting lamp or adjusting effects.

**Manu.** - Manual effect control. Select this menu to call up presetted positions of the channel effects.

**LA.Ad.** - Lamp adjustment. This function can be used when you make the fine adjustment of the lamp. If you select this function, all effects will be canceled, shutter will be opened and the dimmer intensity will be set onto 100%. By using the options „Pan, tilt, Foc.” you can focus the light on a surface (wall) and perform the fine lamp adjustment.

**Code** - Code. This function contains identification hexadecimal code (0000-FFFF) for the fixture, which is used for the master/slave operation.

**Adj.** - Effect adjustment. By this function you can calibrate and adjust the effects to their standard/right positions. Disconnect the DMX controller from the fixture and select „Adj.” menu. The display shows step by step effects by which you can adjust the fixture to the required position before the function calibration (DMX controller must be disconnected). When the positioning is finished, select „F.CAL.” and press [ENTER]:

### 1. Calibration via the control board

Disconnect DMX controller from the fixture. Press [ENTER] and use [UP] and [DOWN] in order to display the following items: „Colo, r.Gob., G.rot., dimr” for very smooth function calibration. Select one of them, press [ENTER] and use the [UP] and [DOWN] in order to adjust their right value from 0 to 255. Then press [ENTER] to confirm or [MODE] to cancel and return to the menu. This can be repeated for each calibration parameter if it is required. When the calibration is finished, it is necessary to use the „A.rES” function in order to write the calibration values to the memory (EPROM) and to make a reset in order to check the newly adjusted positions of the colour, gobo wheels and dimmer. When the reset of the fixture is finished, the display will show the „F.CAL” message. Press [ENTER] to repeat the calibration or [MODE] to return to the „Adj.” menu.

### 2. Calibration via the external controller

Connect the DMX controller to the fixture, press [ENTER] and the [UP] and [DOWN] buttons in order to display the following items: „Colo., r.Gob., G.rot., dimr”. Select one of them and press [ENTER].

Now you can calibrate this effect by your controller. DMX calibration protocol:

Function	Mod 1	Mod 2
“Colo.”- Colour wheel	channel 1	channel 1
“r.Gob.”- Rotating gobo wheel	channel 2	channel 2
“G.rot.” - Gobo rotation	channel 3	channel 3
„dimr” -Dimmer	channel 4	channel 4
No function	channels 5-6	channels 5-6
Standard DMX protocol	channels 7-13	channels 7-13

After having calibrated required effects, press [ENTER] to confirm (or [MODE] to cancel and return to the menu without reset by the „A.rES.” function) and use the „A.rES.” function in order to write the calibration values to the memory ) and to make a reset in order to check the new adjusted positions of the colour and gobo wheels .

## 10. Error and information messages

### HEAt

This message appears if you try to switch on the lamp within 5 minutes after having switched it off (the lamp is too hot). The message will appear on the display if the lamp doesn't ignite within 28 seconds. The ClubSpot 500 CT will store this information and automatically ignite the lamp when the 5 minutes period has expired.

**Caution:** The message is disabled if the lamp light sensor (function „En.Sn.”) is switched off.

### LA.Er.

The ignition of the lamp is seven times unsuccessful (the „HEAt” message appeared six times before), and the display shows „LA.Er”, meaning that the lamp could be damaged or even missed or there could be a failure on the ignitor or ballast. Please place or replace the lamp, check the ambient temperature or contact your distributor if the situation was not caused by the lamp.

**Caution:** The message is disabled if the lamp light sensor (function „En.Sn.”) is switched Off.

### Mb.Er.

This message informs you that the main PCB does not communicate correctly with the Control Board.

**CoEr.**

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 driver circuit on the main PCB). The color-wheel is not located in the default position after the reset.

**rGEr.**

The 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 driver circuit on the main PCB). The rotating gobowheel is not located in the default position after the reset.

**iGEr.**

The 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.

**PrEr.**

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 driver circuit on the main PCB). The prism wheel is not located in the default position after the reset.

**Ft.Er.**

This error message informs you that the fixture was overheating (occured if the ambient temperature is 40° C or more) and that the relay switched off the lamp. This message will appear on the display until the temperature will be on a suitable level, then the display will show the message „HEAT” meaning the lamp is too hot (explanation see above).

**Fr.Er.**

This message will appear if the frequency of the main is not standard 50 or 60 Hz. This message can appear as a result of the interference during the lamp starting (if the lamp or igniter is old) or as a result of the interference by neighbouring devices. **In these cases the message does not affect the fixture operating!**

**Sn.Er.**

This message appears if the lamp lighting sensor is failed.

**PoEr**

This message will appear if the fixture was shortly disconnect from the main.

**PA.Er.** (Pan movement error)

This message will appear after the reset of the fixture if the yoke.s magnetic-indexing circuits malfunction (sensors 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.

**ti.Er.** 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.

**MA.Er.**

The message informs you that the fixture was addressed as a master and DMX signal is connected to its input. Disconnect the DMX controller from fixture’s input and address the fixture as the master again.

**t.M.Er.**

The message informs you that the communication between the head and the main board in the fixture base was cut off (or the head temperature sensor is defective) and the lamp was automatically switched off.

## 11. Technical specifications

**Power supply:**

EU-model: Voltage:.....208/230/240V AC, 50/60Hz ~  
 Fuse:.....T 6.A@230V  
 US-model: Voltage:.....100/120/208/230 V AC, 50/60Hz ~  
 Fuse:.....T 10A@120V  
 Power consumption:.....740 VA

**Lamp:** -Philips MSR 575/2 or Osram HSR 575/72

**Optical System:**

- High luminous-efficiency glass reflector
- Focus lens and multistep zoom lenses system
- All lenses are anti-reflection coated

**Colour wheel:**

-9 dichroic filters + open

**Rotating gobo wheel:**

- 6 glass gobos (1 effect-glass gobo, 3 black and white gobos, 1 multicolour and 1 dichroic gobo)
- Gobo indexing and rotation in both directions at different speeds
- Gobo carousel cont. rotation
- All rotating gobos are easily replaceable
- Gobo dimensions: outside diameter=26.8mm, thickness=1.1mm, high temperature
- boro oat or better glass, image diameter=22 mm
- Effect-glass gobo: outside diameter=26.8 mm, max.thickness=4mm, high temperature boro oat or better glass

**Strobe:**

- Strobe effect with variable speed (max.10 ashes per second)

**Dimmer:**

- Smooth dimmer from 0 - 100 %

**Prism:**

- 3-facet-prism rotating in both directions at different speeds

**Focus/Zoom:**

- Remotely controllable focus via DMX
- Manual zoom 15° and 22°

**Electronics:**

- Addressing, special functions setting, effects calibration via control panel with 4-digit LED display
- Readout fixture and lamp usage, receiving DMX values, temperature, etc
- Built-in analyzer for easy fault finding, error messages
- Remotely switching of the lamp
- Bilt-in demo sequences
- Silent fans cooling, remotely controllable speed of fans
- Self-resetable thermo-fuse
- Stand-alone operation
- Master/slave operation
- Digital serial input DMX-512
- 3 DMX protocol modes (11 or 13 control channels)

**Pan/Tilt:**

- Pan movement range 530°
- Tilt movement range 280°
- 8 or 16 bit movement resolution
- Automatic Pan/Tilt position correction
- Remotely controllable speed of pan/tilt movement for easy programming
- Movement control: tracking and vector

**Rigging:**

- Mounting points: 4 pairs of 1/4-turn locks
- Mounting horizontally or vertically via 2 Omega brackets
- Safety chain/cord attachment point

**Temperatures:**

- Maximum ambient temperature: 40° C
- Maximum housing temperature: 80° C

**Minimum distances:**

- Min. distance from ammable surfaces: 0.7m
- Min. distance to lighted object: 2.0m

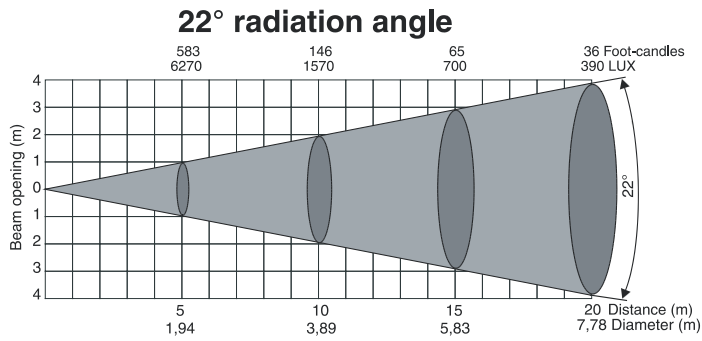
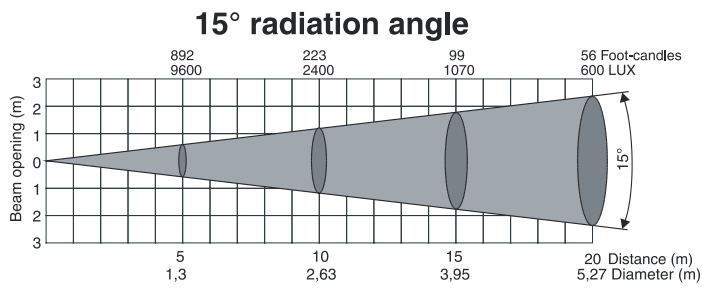
**Accessories**

- Omega holder (2 pieces) .....No. 99010420

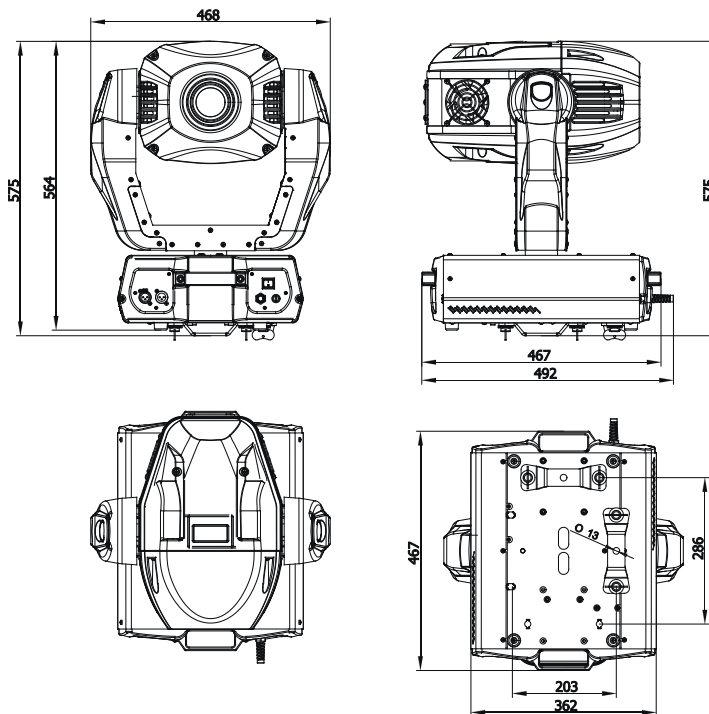
**Optional Accessories**

- Flash cable RS232/DMX.....No.13050624

**Beampath:**



**Dimensions (mm):**



**Weight (net):**

EU version: 31.7 kg  
 US version: 35.6 kg



## 12. Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-uid 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 uid is recommended, under no circumstances should alcohol or solvents be used!

### **DANGER !**

***Disconnect from the mains before starting any maintenance work***

The front objective lens will require weekly cleaning as smoke-uid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.

The gobos may be cleaned with a soft brush. The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet.

The dichroic colour filters, the gobo wheel and the internal lenses should be cleaned monthly.

There are no serviceable parts inside the device except for the lamp and the fuse.

Please refer to the instructions under "Fitting/Exchanging the lamp".

Maintenance and service operations are only to be carried out by authorized dealers.

### **Replacing the fuse**

If the lamp burns out, the fine-wire fuse of the device might fuse, too. Only replace the fuse by a fuse of same type and rating.

Before replacing the fuse, unplug mains lead.

#### **Procedure:**

- 1) Unscrew the fuseholder on the rear panel of the base with a fitting screwdriver from the housing (anticlockwise).
- 2) Remove the old fuse from the fuseholder.
- 3) Install the new fuse in the fuseholder.
- 4) Replace the fuseholder in the housing and fix it.

