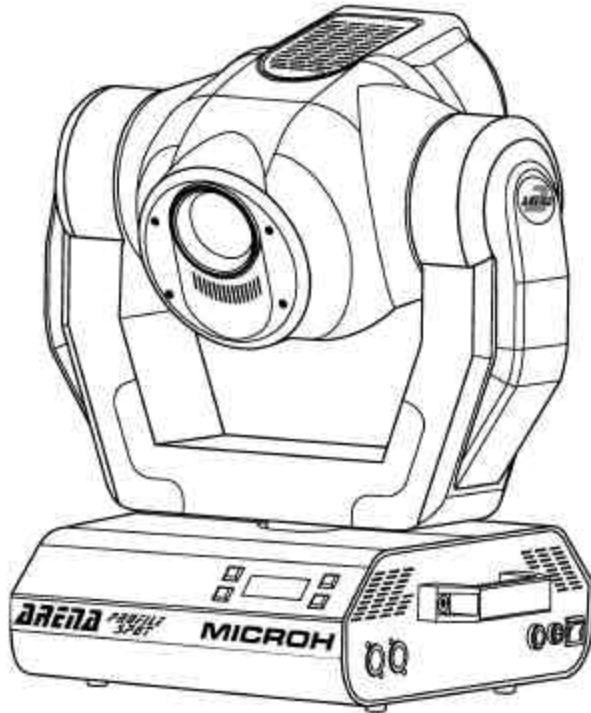


# MICROH *ARENA PROFILE SPOT*



## *USERS MANUAL*

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*Congratulations on your purchase of a  
**MICROH ARENA PROFILE SPOT**  
or as we affectionately call it the “ARENA SPOT”.*  
*Every effort has been made to ensure that you now own  
one of the most technically advanced, feature packed,  
and versatile moving head fixtures on the market today.*  
*Durable and versatile enough to give you  
excellent & reliable service for many years.*

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**CAUTION!**  
**Keep this fixture away from rain and moisture!**  
**Unplug fixture before opening the housing!**

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

## **1. SAFETY**

### **1.1 Safety instructions**

Everyone involved with the installation, operation and maintenance of this device should :

- be knowledgeable of sophisticated lighting systems
- follow the instructions contained in this manual



**Caution! Be careful when operating or installing this fixture. You could suffer an electrical shock when touching the wires!**

We have made every effort to ensure that this fixture has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

#### **Important:**

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

Please consider that damages caused by manual modifications to the fixture 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 power supply with particular care!

Make sure that the available voltage is not higher than indicated on the rear panel of the fixture. Always plug in the power plug last and make sure that the power switch is set to the **OFF** position before you connect the fixture to the power supply. The power plug should be accessible after installing the fixture.

Make sure that the power cord is never crimped or damaged by sharp edges. Check the fixture and the power cord occasionally for wear and damage.

Always disconnect the fixture from the power supply when it is not in use or before cleaning it. Only handle the power cord by the plug; Never pull out the plug by tugging on the power cord.

This device falls under protection **Class I**. Therefore it is essential to connect the green conductor to earth, ensuring the the unit is properly grounded.

Only qualified technicians should perform electrical connections, repairs and servicing of the fixture.

Do not connect this fixture to a dimmer pack.

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

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

Do not touch the fixture's housing barehanded during its operation (housing becomes hot)!

When replacing use lamps and fuses use the same type and rating only.



**CAUTION! BEWARE OF POTENTIAL EYE DAMAGE!**  
**Avoid looking directly into the light source.**  
**(Meant especially for epileptics)!**

### 1.2 Operating the Fixture

This fixture is a moving head spot for creating lighting effects. This product has been configured to operate with an alternating current of 120 V, 60 Hz and was designed for indoor use only.

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

Never operate the fixture without the lamp!

Avoid shaking the fixture or using brute force. Avoid brute force when installing or operating the fixture.

Never lift the fixture by holding the projector head or arms, as this may damage the pan & tilt motors. Always hold the fixture by the transport handles.

When choosing the location for installation, please make sure that the fixture is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You may endanger yourself and the safety of others!

The minimum distance between light output and the illuminated surface must be greater than 1 meter (3 Feet).

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

Always secure the fixture with an appropriate safety cable. Secure the safety cable by 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 of 45°C (110°F) must never be exceeded. Otherwise, the lamp shall switch off and will be unable to operate for 5 minutes.



**CAUTION!**

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

Operate the fixture only after having familiarized yourself with its functions. Do not permit operation by persons not qualified to operate this device. Most damages are the result of unprofessional operation!



**CAUTION!**

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

Please use the original packaging or a specifically designed flight case if the fixture is to be transported.

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

If this device is to be operated in any way different from that described in this manual, the product may suffer damages and the warranty may become void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns due to ultraviolet radiation, lamp explosion, etc.

## 2. Introduction

Unpack your **MICROH ARENA PROFILE SPOT** and make sure that there was no damage caused by transportation. Should there be any, please consult your local dealer and do not operate the fixture.

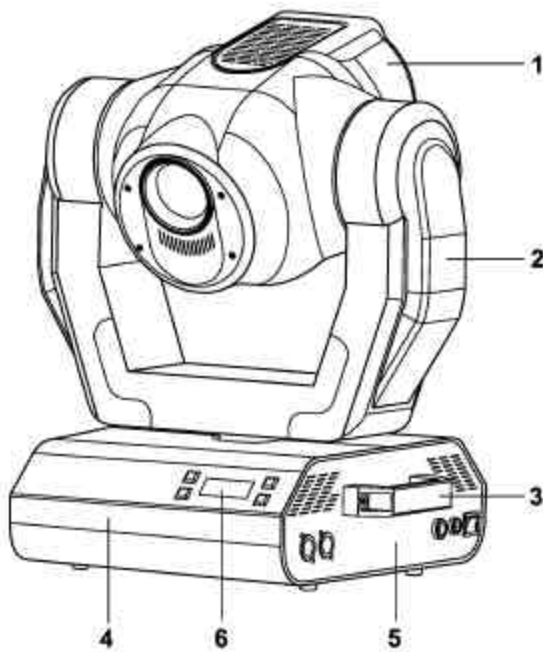
### 2.1 Features Moving Head Profile Spot

Rotating gobo wheel with 6 interchangeable and indexable rotating gobos plus open.  
Rotating gobos: 4 metal gobos, 1 multicolor dichroic gobo, 1 glass gobo.

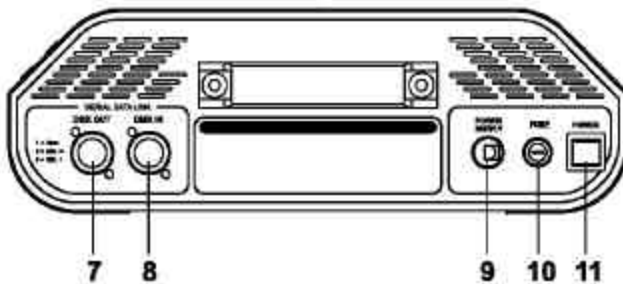
Rotating gobo wheel with continuous rotation

- The rotating gobos can be turned 360°, the position is indexable
- 3 additional metal gobos and 2 glass gobos are included
- Colour wheel with 11 dichroic filters plus open.
- Continuous rotation rainbow effect in both directions
- High speed rotating 3-facet prism
- Remotely controllable motorized focus
- Combined shutter/dimmer unit allows for smooth dimming and strobing
- Modular construction of fixture
- Addressing, special function settings & calibration via control panel
- 4 Digit LED display show fixture and lamp usage, receiving DMX values, temperature, etc
- Built-in analyzer for easy fault finding, error messages
- Remote switching of the lamp
- Built-in demo sequences
- Preprogrammed variable/random strobe and dimmer pulse effects
- Macro function for rotating gobos/rotating prism combinations
- Black out while Head moving or gobo/colour/prism changing
- Remotely controllable speed of Pan/Tilt movement
- Remote reset function
- Silent fans cooling; remote controlled fan speed (FANTROL)<sup>TM</sup>
- 16 DMX-channels - 16 bit Pan/Tilt movement resolution
- 14 DMX-channels - 8 bit Pan/Tilt movement resolution
- Pan movement range 530° Tilt-movement range 280°
- Automatic Pan/Tilt position correction (APTC)<sup>TM</sup>
- High luminous efficiency parabolic mirror and double condenser system
- All lenses are anti reflection coated
- 10 high quality stepper motors for smooth movements
- Self resettable thermo fuse
- Uses Philips MSD 250 & MSD250/D and OSRAM HSD 250 & HSD 250/2 GY-9.5
- Control via standard DMX controller

## 2.2 Description of Device



- 1 - Projector-head
- 2 - Yoke
- 3 - Carrying handles
- 4 - Base
- 5 - Base - side panel
- 6 - Control Board



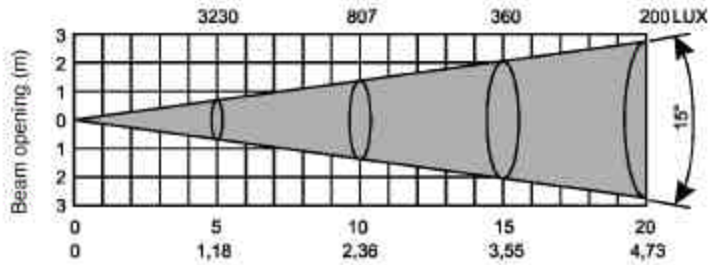
- Base - side panel:**
- 7 - DMX-output
  - 8 - DMX-input
  - 9 - Powercord
  - 10 - Fuseholder
  - 11 - Power-switch



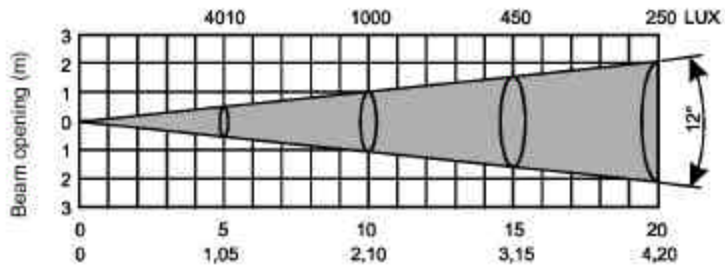
- Control Board:**
- 12 - Mode-button
  - 13 - Display
  - 14 - Enter-button
  - 15 - Up/Down-buttons

## 2.3 Beampath

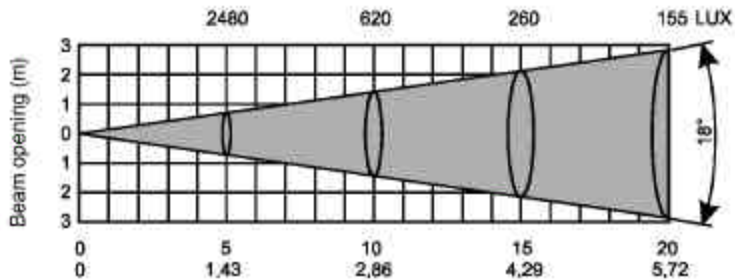
### Standard 15° objective



### Optional narrow 12° objective



### Optional wide 18° objective

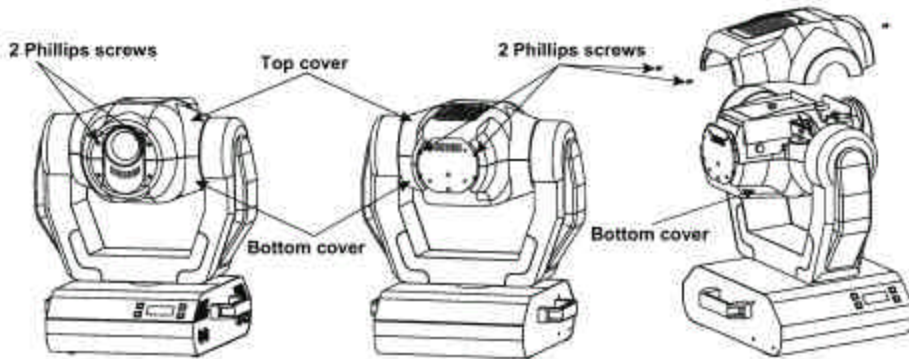


## 3. Installation

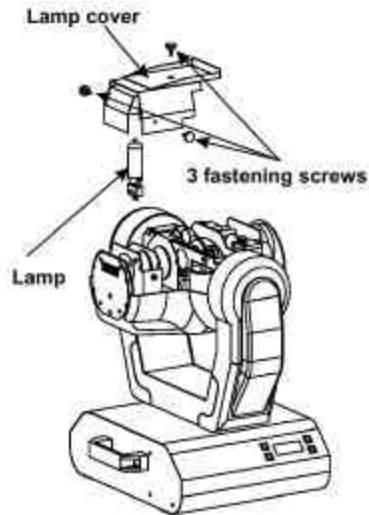
### 3.1 Fitting/Exchanging the lamp



**DANGER!**  
Install the lamp with the fixture switched off.  
Unplug from power supply before opening unit!

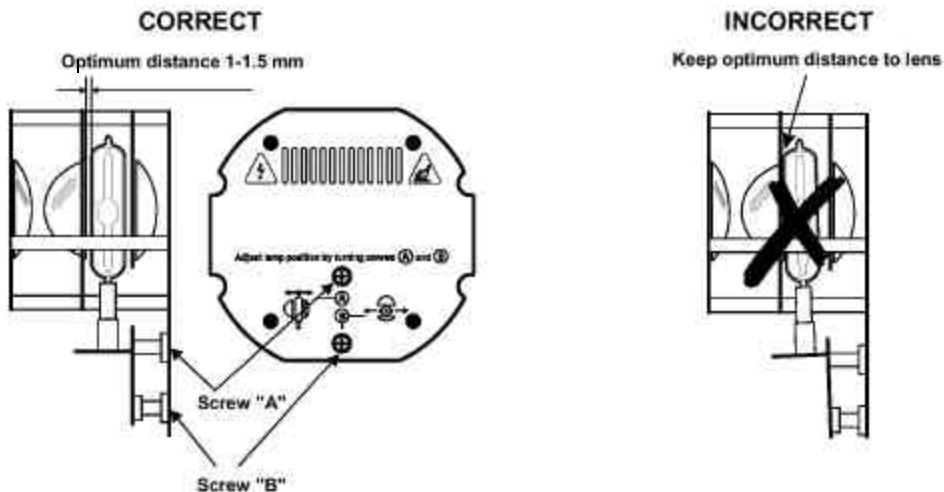


To insert the lamp, open the top cover of the head (see the drawings to identify which cover is top) by loosening the 4 Phillips screws on the front and rear sides of the top cover. Then open the small lamp cover by loosening the 3 thumb screws (see the drawing). If changing the lamp, remove the old lamp from the socket and insert the new lamp. Do not install a lamp with a higher wattage as it may generate temperatures the fixture was not designed for. Damages caused by non-observance are not covered by warranty. Please follow the lamp manufacturer's notes! Do not touch the glass-bulb barehanded during the installation! Make sure that the lamp is installed tightly into the lamp holder system. Adjust the optimal distance 11.5 mm from the lens by turning the screw "A" (see the drawings "**Lamp adjustment**" next page). Then close the small lamp cover by tightening the 3 thumb screws. Close the top cover of the head and tighten the 4 Phillips screws. Before striking the lamp, reset the "**LAti**" counter in the main 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 the fixture with housing cover open!**

## Lamp Adjustment



The **ARENA PROFILE SPOT** lamp holder is aligned at the factory. Due to differences between lamps, fine adjustment may improve light output.

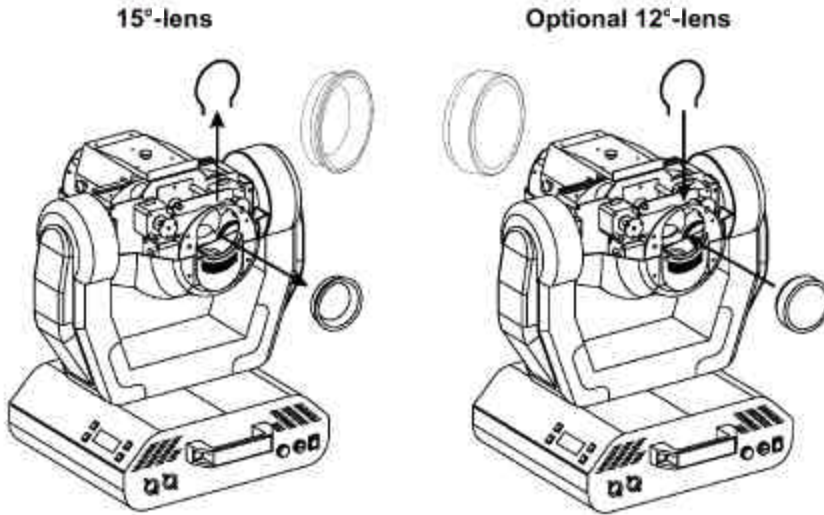
Strike the lamp and focus the light on a flat surface (wall). As the optimum distance of lamp from lens was adjusted during the installation of the lamp (by turning the screw "A"), it should only be necessary to adjust only the second position by turning the screw "B", in order to center the hot-spot (the brightest part of the beam). If the Hot Spot seems to be too bright, you can lower its intensity by moving the lamp closer to the reflector. Do so by turning screw "A" until the light is evenly distributed. If the light on the edge seems to be brighter than the center, the lamp is too close to the reflector. In this case, you need to move the lamp away from the reflector until the light is evenly distributed and the beam appears appropriately bright.

### 3.2 Installation of an optional lens

The fixture is delivered with a 15° standard lens. If you wish to insert an optional 12° or 18° lens, please follow the instructions below:

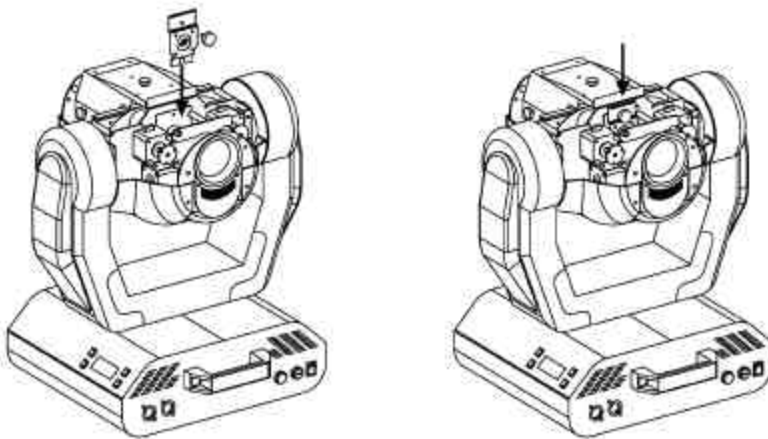
#### Optional 12° lens:

Remove the C-Clip of the 15° lens with an appropriate tool. Remove the lens. Install the optional 12° lens and secure it with the C-Clip.



#### Optional 18° lens:

Unscrew the thumb screw on the plate of the light path as shown below. Install the optional 18° lens and secure it with the thumb screw.



### 3.3 Inserting/Exchanging gobos



**DANGER!**  
**Install gobos with the fixture switched off / and  
Unplugged from the power supply!**

To insert the gobos open the top cover of the head by loosening the 4 Phillips screws on the front and rear sides of the top cover.

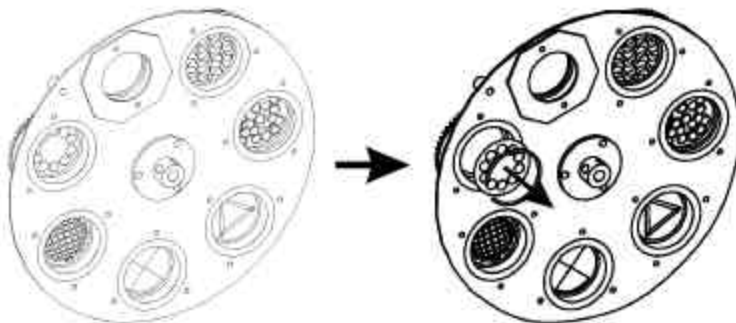
If you wish to use other forms and patterns as the standard gobos, or if gobos are to be exchanged, please follow the instructions below:

#### Rotating gobo wheel:



**CAUTION!**  
**Never remove the screws of the rotating gobo  
as the ball bearings will fall out!**

Remove the C-Clip with an appropriate tool. Remove the gobo and insert the new gobo. Press the C-Clip together and insert it in front of the gobo.



### 3.4 Rigging the fixture

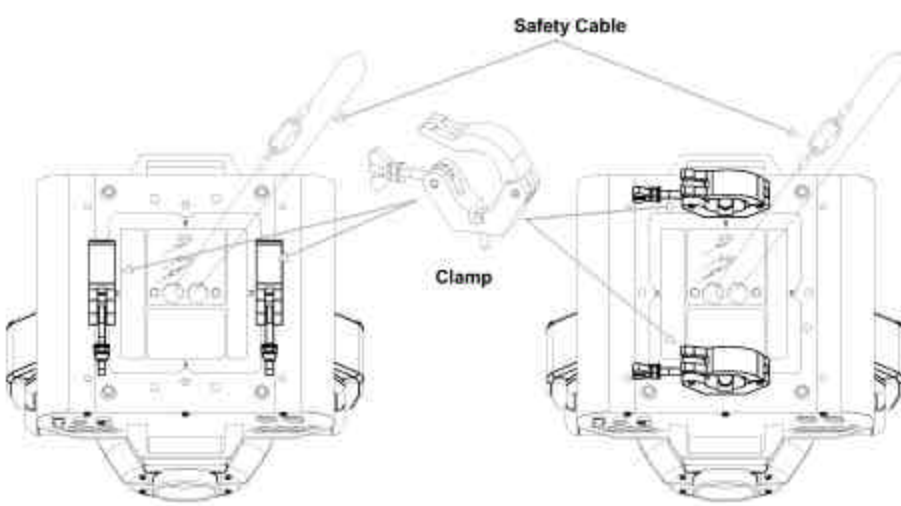
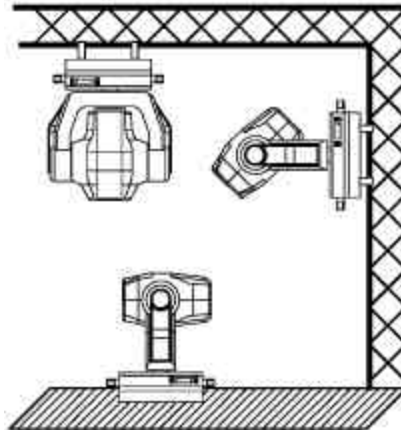


**DANGER OF FIRE!**  
When installing the fixture, make sure there are no highly flammable Materials (decoration articles, etc.) closer than 0.5 m.



**CAUTION!**  
Use 2 appropriate clamps to rig the fixture to the truss.  
Follow the instructions on the bottom of the base.  
Make sure that the device is secured properly! .


The **ARENA PROFILE SPOT** can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operational characteristics (see the drawing). The fixture's base enables it to be mounted in two ways. Use the clamps with either M10 or M8 screws - check the base bottom. Install a safety-cable that can hold at least 10 times the weight of the fixture. Never use the carrying handles for secondary support.



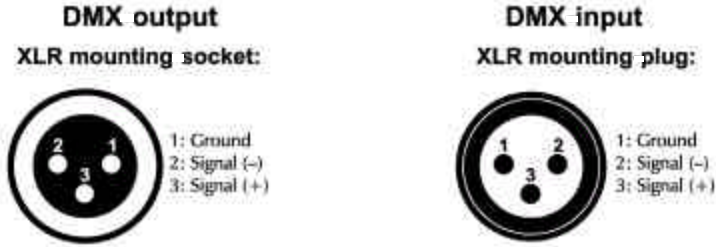
### 3.5 Connection to the power supply

Connect the fixture to the power supply with the plug.  
The earth has to be connected!

**The configuration of the power supply cables is as follows:**

Cable	Pin	International
Black	Live	L
White	Neutral	N
Green	Ground	

## Configuration of the XLR connector:



### Building a serial DMX chain:

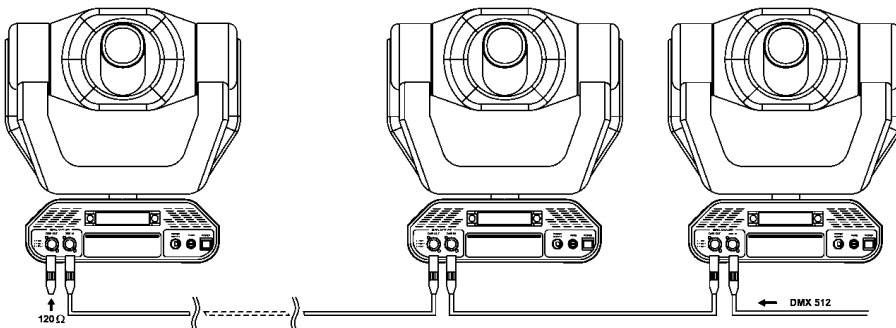
Connect the DMX output of the first fixture in the DMX chain with the DMX input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.

#### Caution:

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

### 3.7 DMX-512 connection between fixtures and controller

**Individual bare DMX Control wires must not come into contact with each other, otherwise the fixtures will not work properly or at all.**



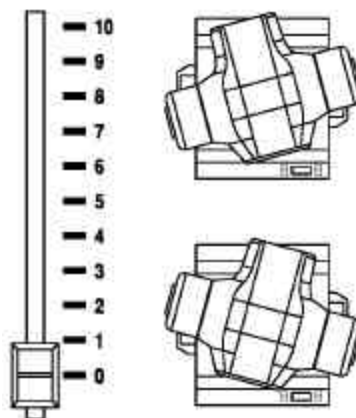
Only use a stereo shielded cable and 3-pin XLR plugs and connectors in order to connect the controller with the fixture and one fixture with another.

## 4. DMX-Protocol

### 4.1 Function of the control channels - 16 bit protocol

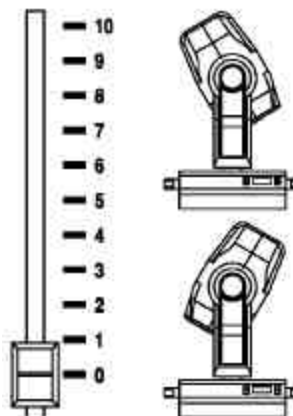
#### 4.1.1 Channel 1 - Horizontal movement (Pan)

Push fader up in order to move head horizontally (PAN). Gradual head adjustment from one end of the fader to the other (0-255, 128-center). The head can be turned by 530° and stopped at any position you wish.



#### 4.1.2 Channel 2 - Vertical movement (Tilt)

Push fader up in order to move head vertically (TILT). Gradual head adjustment from one end of the fader to the other (0-255, 128-center). The head can be turned by 280° and stopped at any position you wish.



#### 4.1.3 Channel 3 - Pan fine 16 bit

When in 16 Bit Resolution mode, channel 3 controls fine movement of the Panning motion.

#### 4.1.4 Channel 4 - Tilt fine 16 bit

When in 16 Channel DMX mode, channel 4 controls fine movement of the Tilting motion.

#### 4.1.5 Channel 5 - Speed of PAN / TILT movement

0	Max speed (tracking mode)
1	Max speed (vector mode)
249	Min. speed (vector mode)
250-255	Max. speed, black-out while PAN, TILT moving or color changes (tracking mode)

#### 4.1.6 Channel 6 - Switch on / off the lamp, reset, speed control of cooling fan ( FANTROL)

0	Open, max. speed of fan
127	Open, min. speed of fan (silent operation) from 0 to 127 - decreasing speed of fan
128 - 139	Switch on the lamp, reset, open position
140 - 239	No function
230 - 239	Switch off the lamp after 3 seconds
240 - 255	No function

#### 4.1.7 Channel 7 – Colours

Linear colour change follows the movement of the fader, allowing you to stop the colour wheel in any position - even between two colours creating dual coloured beams. Between DMX Values of 128 and 190 and between 193 and 255, the colour wheel rotates continuously creating a "Rainbow" effect.

0	Open / white
10	Turquoise
21	Red
32	Cyan
42	Green
53	Magenta
64	Light Blue
74	Yellow
85	Green
96	Pink
106	Blue
117	Orange
128 - 190	Forwards rainbow effect from fast to slow
191 - 192	No rotation
193 - 255	Backwards rainbow effect from slow to fast

#### 4.1.8 Channel 8 - No function

#### 4.1.9 Channel 9 – Effect Wheel

0 - 95	Open position (hole)
96 - 159	3 - facet rotating prism
<b>160 - 255</b>	<b>Prism/Gobo macros</b>
160 - 167	Macro 1
168 - 175	Macro 2
176 - 183	Macro 3
184 - 191	Macro 4
192 - 199	Macro 5
200 - 207	Macro 6
208 - 215	Macro 7
216 - 223	Macro 8
224 - 231	Macro 9
232 - 239	Macro 10
240 - 247	Macro 11
248 - 255	Macro 12

#### 4.1.10 Channel 10 – Prism Rotation Control

0	No rotation
1 - 126	Forwards rotation from fast to slow
127 - 128	No rotation
129 - 255	Backwards rotation from slow to fast

#### 4.1.11 Channel 11 – Gobo Selection and Continuous Rotation

0 - 31	Open
32 - 63	Rot. gobo 1 (multicolor dichroic)
64 - 95	Rot. gobo 2 (glass)
96 - 127	Rot. gobo 3 (metal)
128 - 159	Rot. gobo 4 (metal)
160 - 191	Rot. gobo 5 (metal)
192 - 223	Rot. gobo 6 (metal)
224 - 255	Rot. gobo wheel cont. rotation slow to fast

#### 4.1.12 Channel 12 – Rotating gobo index and gobo rotation

0 - 127	Gobo indexing
128 - 191	Forwards gobo rotation from fast to slow
192	No rotation
193 - 255	Backwards gobo rotation from slow to fast

#### 4.1.13 Channel 13 – No function

#### 4.1.14 Channel 14 - Focus

0 - 255	Continuous adjustment from far to near
---------	--

#### 4.1.15 Channel 15 – Shutter and Strobing

0 - 31	Shutter closed
32 - 63	No function (Shutter open)
64 - 95	Strobe-effect from slow to fast (max. 10 flashes/second)
96 - 127	No function (Shutter open)
128 - 159	Pulse-effect in sequences
160 - 191	No function (Shutter open)
192 - 223	Random strobe-effect from slow to fast
224 - 255	No function (Shutter open)

#### 4.1.16 Channel 16 – Dimming

0 - 255	Gradual adjustment of the dimmer intensity from 0 to 100 %
---------	--

### 4.2 Function of the Control Channels Using 8 Bit DMX Protocol

DMX Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Function	PAN	TILT	PAN/TILT SPEED	FAN ON/OFF LAMP	COLOURS	-	PRISM	PRISM ROTATION	ROTATING GOBOS	GOBO ROTATION	-	FOCUS	STROBE	DIMMER

## 5. Addressing

The Control Panel on the top side of the **ARENA PROFILE SPOT** allows you to assign the DMX fixture address. This is defined as the first channel from which the **ARENA PROFILE SPOT** will respond to the controller.

If you set, for example, the address to channel 5, the **ARENA PROFILE SPOT** when set to 8 Bit Protocol, will use channels 5 to 20 for control. Please, be sure that you don't have any overlapping channels in order to control each **ARENA PROFILE SPOT** correctly and independently from any other fixture on the DMX data link.

If two, three or more **ARENA PROFILE SPOT fixtures** are addressed similarly, they will operate identically.

### For address setting follow this procedure:

1. Switch on the **ARENA PROFILE SPOT** and wait until the fixture reset has finished ("**rSt**" is flashing on the display).
2. Press the **[Mode]** key in order to access the main menu. Browse through the menu by pressing the [Up] and [Down] keys until the display shows "**A001**". Confirm by pressing **[Enter]** key and the letter "**A**" will flash.
3. Use the [Up] and [Down] keys to select the desired address.
4. Confirm by pressing **[Enter]** or **[Mode]** to cancel.

### Controlling:

After having addressed all **ARENA PROFILE SPOT** fixtures, you may now start operating these via your lighting controller.

### Note:

After switching on, the **ARENA PROFILE SPOT** 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**" or with the 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 **ARENA PROFILE SPOT**
- the controller is switched off or defective, if the cable or connector is defective or the DMX signal wires are reversed (Pin 2 + and Pin 3 -) in the input connector.
- It's necessary to insert the XLR termination plug (with 120 Ohm) in the last lighting in the link in order to ensure proper transmission of the DMX data link.

## 6. Remotely controllable functions

### 6.1 Lamp

The **ARENA PROFILE SPOT** is to be installed with a MSD 250 120V lamp. A relay inside of the **ARENA PROFILE SPOT** allows you to switch on and off the lamp via the Control Panel on the fixture or by your DMX controller.

### 6.2 Switching on and off the lamp via the Control Board

1. Switch on the **ARENA PROFILE SPOT** and wait until the fixture has homed
2. Press the **[Mode]** key in order to access the main menu. Browse through the menu by pressing the [Up] and [Down] keys until the display shows "**LAMP**". Confirm by pressing **[Enter]** key.
3. Use the [Up] and [Down] keys to select "**On**" for switching the lamp on and "**Off**" for switching the lamp off and press **[Enter]** to confirm or **[Mode]** to cancel.

#### Note :

*It is also important to note that the discharge lamp is a cold restrike type, which means that it has 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 minute after having switched it off, the **ARENA PROFILE SPOT** will store this information and automatically ignite the lamp when the 5 minute period has expired. The message "**HEAt**" will appear on the control board panel at the backside of the **ARENA PROFILE SPOT**. If the lamp attempts ignition seven times unsuccessfully, "**LA.Er**" will appear on the display indicating that the lamp could be damaged or missing, or there could be a failure of the igniter or the ballast.*

### 6.3 Colour wheel

The **ARENA PROFILE SPOT** features a colour wheel with 12 color positions - 11 of these with dichroic colors and the last one open. The wheel can be positioned between two adjacent colors in any position. It is also possible to rotate the color-wheel continuously at different speeds for the "Rainbow effect".

#### 6.4 Rotating gobo wheel

The rotating gobo wheel includes 4 metal gobos, 1 glass gobo and 1 multicolor dichroic gobo rotating in both directions, indexable, rotating gobo wheel cont. rotation slow to fast. The multicolor dichroic gobo (containing C,M,Y colors) can be combined with the color-wheel especially with cyan, magenta and yellow colours in order to obtain several different multicolor beams. The gobos have an outside diameter of 27 mm and an image diameter of 23 mm.

#### 6.5 3-facet rotating prism

The 3-facet prism rotates in both directions at different speeds.

#### 6.6 Focus

Motorized focus enables the beam to be focused anywhere.

#### 6.7 Dimmer / Shutter / Strobe

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

#### 6.8 Fan

Two axial fans cool the **ARENA PROFILE SPOT** - one in the projector head and one in the base. The speed of the fan (and of course the noise) can be regulated if very quiet performance is required (FANTROL).

On the Control Panel using the "**FAnS**" function you can choose 3 types of fan speed operation:

##### 1. "reG" - continuous controlling of the fan speed

If the temperature inside the fixture increases above a certain level (the low fan speed reduces the temperature of the fixture). This cycle will repeat several times until the temperature inside is at a suitable level. The fan automatically increases its speed in order to lower the inside temperature of the fixture.

##### 2. "Lo.HI"- low/high speed of the fan operating

The fan keeps the adjusted speed slow until the temperature exceeds the allowable maximum inside temperature of the fixture, then the **ARENA PROFILE SPOT** automatically switches the fan speed from low to high.

##### 3. "Lo.OF" - low speed / Switch off the lamp

The fan keeps the adjusted low speed until the temperature exceeds the allowable maximum inside temperature then the **ARENA PROFILE SPOT** automatically switches off the lamp.

##### 4. "HIGH" - high (max) speed of fans

The cooling fans work on high speed for maximum cooling efficiency.

## 7. Control Panel

The Control Panel situated on the topside of the **ARENA PROFILE SPOT** offers several features. You can, very simply set the DMX address, read the number of lamp or unit hours, switch on and off the lamp, run demonstration sequences, reset the fixture and also use special functions for manual control and service purposes.

The main menu is accessed by pressing the **[Mode]** key - press this key until the display shows message "**A001**" (or with the stored address). Browse through the menu by the pressing the [Up] and [Down] keys - the display shows step by step these messages: **A001, rPAn, rTilt, 16br, LAti, Poti, LAMP, dEMo, rESE, SPEC**. Press **[Enter]** if you wish to select one of them. The functions provided are described in the following sections and the function hierarchy is shown below.



### 7.1 Main functions

#### **A001** - DMX 512 Address settings

The letter "**A**" flashes. Use the [Up] and [down] keys to select the required address (001 - 496) then press **[Enter]** to confirm or **[Mode]** to cancel and return to the main menu.

#### **rPAn** - Pan reverse

This function allows you to invert the Pan movement. Use the [Up] and [Down] keys to select "**On**" if you wish this feature or "**Off**" if you don't wish this feature then press **[Enter]** to confirm or **[Mode]** to cancel and return to the main menu.

#### **rTilt** - Tilt reverse

This function allows you to invert the Tilt movement. Use the [Up] and [Down] keys to select "**On**" if you wish this feature or "**Off**" if you don't wish this feature then press **[Enter]** to confirm or **[Mode]** to cancel and return to the main menu.

#### **16br** - Movement resolution

By this function you can adjust the desired movement resolution 8 or 16 bit. Use the [Up] and [Down] keys to select '**On**' if you wish the 16bit high resolution or "**Off**" if you wish only 8 bit resolution then press **[Enter]** to confirm or **[Mode]** to cancel and return to the main menu.

**Note:** *If you adjust the 16-bit resolution the fixture will occupy 16 DMX channels, if you adjust the 8-bit resolution, the fixture will use only 14 DMX channels. Please, check the DMX protocol.*

## L<sub>On</sub> - Lamp On time

This option enables you to read the total number of hours that the lamp has been powered on. Press **[Enter]** or **[Mode]** to return to the main menu. In order to reset the counter to 0, you have to hold the Up and Down button and press the Enter button.

## P<sub>On</sub> - Power On time

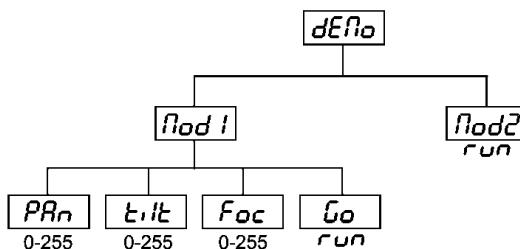
This option allows you to read the total number of hours that the **ARENA PROFILE SPOT** has been powered on. Press **[Enter]** or **[Mode]** to return to the main menu.

## L<sub>AMP</sub> - Switch on / off the lamp

Use the **[Up]** and **[Down]** keys to select "On" if you wish to switch the lamp on or "Off" if you wish to switch the lamp off then press **[Enter]** to confirm or **[Mode]** to cancel and return to the main menu.

## d<sub>EN</sub> - Demo sequences

This function allows you to run special demo test sequences without an external controller. This will show you some of the capabilities of **THE ARENA PROFILE SPOT**. Press the **[Up]** and **[Down]** keys to select the "Mod1" or "Mod2" sequences. The "Mod1" is suitable for projections on the wall, ceiling or ground without any head-movement, the "Mod2" uses all **ARENA PROFILE SPOT** functions and therefore is good for a complete introduction of the fixture.

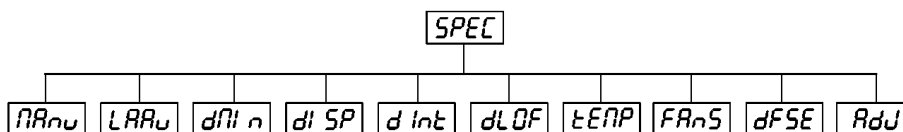


## - Reset Function

r<sub>ESE</sub> Press the **[Enter]** key to run reset. This option enables the **ARENA PROFILE SPOT** to index all effects (functions) and return to their standard positions.

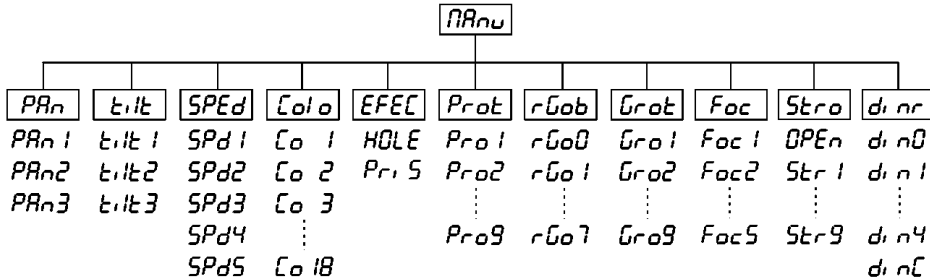
## 7.2 Special Functions

Use the **[Up]** and **[Down]** keys to browse through the special functions and select one by pressing **[Enter]**.



## PARnu - Manual control of effects

This function allows you to manually control the channel functions of the fixture. Use the [Up] and [Down] keys to select the desired function and press [Enter] to adjust the effect or [Mode] to cancel and return to the menu.

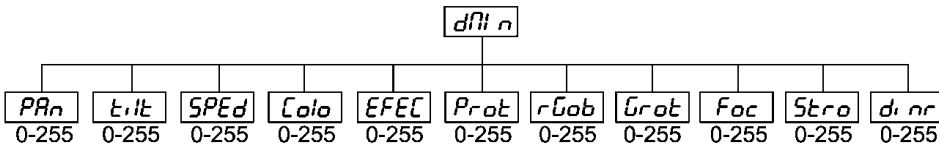


## LAMP - Lamp On automatically

This function enables the lamp to strike automatically after switching on the fixture. Use the [Up] and [Down] keys to select "On" if you wish to switch on the lamp on automatically after switching on the fixture or "Off" if you wish the lamp to remain off after switching on the fixture then press [Enter] to confirm or [Mode] to cancel and return to the menu.

## dmn - DMX values

Shows the DMX values of each channel received by the fixture. Use the [Up] and [Down] keys to select the desired channel then press [Enter] to read its value coming to the fixture or [Mode] to cancel and return to the menu.



## di SP - Automatic blackout of Display

This function allows you to keep the display on or to turn it off automatically 2 minutes after pressing any key on the control panel. Use the [Up] and [Down] keys to select "On" if you wish to keep the display on or "Off" if you wish to turn off automatically 2 minutes after last pressing any key on the Control Board then press [Enter] to confirm or [Mode] to cancel and return to the menu.

## dint - Display intensity

With this function, you can adjust the display intensity from 20 to 100. Use the [Up] and [Down] keys to select the level of the display intensity then press [Enter] to confirm or [Mode] to cancel and return to the menu.

## **LoOF - Lamp off via DMX**

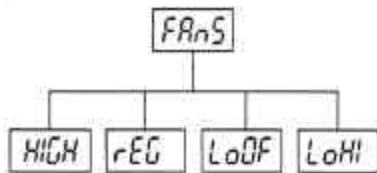
This function allows you to switch off the lamp by your DMX controller. Use the **[Up]** and **[Down]** keys to select "On" if you want to switch off the lamp by DMX or "Off" if you don't want to switch off the lamp by DMX and press **[Enter]** to confirm or **[Mode]** to cancel and return to the menu.

## **TEMP - Temperature**

Displays the internal temperature of the fixture in Celsius. Internal temperatures above 70° C are not critical, however 70° C and greater lead to the lamp being switched off. Please note that the external temperature should not exceed 45° C.

## **FAN5 - Low Fan speed operation (FANTROL)**

By using this function you can choose 4 types of low fan speed operation. Browse through this menu by the pressing **[Up]** and **[Down]** keys - the display shows step by step these messages: "HIGH, reG", Lo.HI, Lo.OF". Press **[Enter]** if you wish to select one of them or **[Mode]** to cancel and return to the menu.



### **HIGH - high (max) speed of fans**

The cooling fans work on max. speed (max. cooling)

### **reG - continuous control of the fan speed**

The fan automatically raises its speed in order to control inside temperature of the fixture, if the temperature inside increases above a certain level (the low fan speed reduces the temperature of the fixture). This cycle can repeat several times until the temperature inside is at a suitable level.

### **LoOF - low speed / switch off the lamp operating**

The fan maintains a low speed until the temperature exceeds the maximum inside temperature, then the **ARENA PROFILE SPOT** automatically switches off the lamp.

### **LoHI - low/high speed of the fan operating**

The fan keeps the adjusted low speed until the temperature exceeds maximum inside temperature of the fixture, then the **ARENA PROFILE SPOT** automatically switches from low to high fan speed.

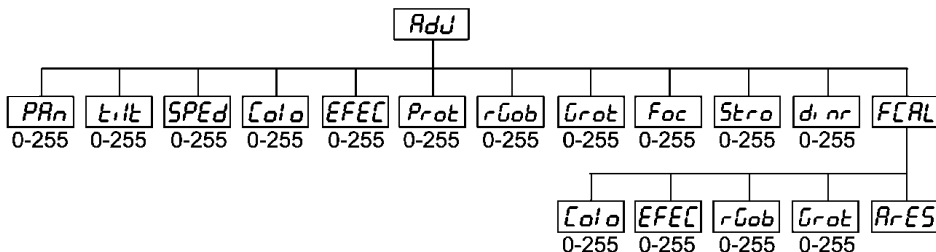
## dFSE - Default settings

Press [Enter] to reset all fixture personalities (not the adjusting functions) to the default values. On the display will appear "rSt" indicating that the fixture is resetting. See the table of personality setting and their default positions.

Personality	Display	Default values Checked
Pan reverse	<i>rPRn</i>	<i>On</i>
		<i>OFF</i> ✓
Tilt reverse	<i>rtilt</i>	<i>On</i>
		<i>OFF</i> ✓
Resolution	<i>16br</i>	<i>On</i> ✓
		<i>OFF</i>
Lamp on automatically	<i>LARu</i>	<i>On</i> ✓
		<i>OFF</i>
Display blackout	<i>diSP</i>	<i>On</i> ✓
		<i>OFF</i>
Display intensity	<i>dInt</i>	<i>20 40 60 80 100</i> ✓
Lamp off via DMX	<i>dLOF</i>	<i>On</i> ✓
		<i>OFF</i>
Fan speed	<i>FAnS</i>	<i>rEG</i> ✓
		<i>LoDF</i>
		<i>LoHi</i>

## Adj - Adjusting the default positions of colour, gobo and effect wheels

Using this function you can calibrate and adjust the colour, gobo and effect wheels to their standard/correct positions. Use the [Up] and [Down] keys to browse through the adjusting menu - the display shows step by step these messages: "**PAn, Tilt, SPEd, Colo, EFEC, Prot, rGOB, Grot, Foc, Stro, dimr, FCAL**" by which you can adjust the fixture to the required / desired position (0-255) before the function calibration. Then when the positioning is finished use the last "**FCAL**" function (Fixture calibration).



## 1. Calibration via the control panel

Press **[Enter]** and the **[Up]** and **[Down]** keys in order to display the following messages: **"Colo, EFEC, rGob, Grot"** for very smooth function calibration.

Select one of them, press **[Enter]** and use the **[Up]** and **[Down]** keys 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 **"ArES"** function in order to write the calibration values to the memory (EEPROM) and to reset the fixture in order to check the newly adjusted positions of the colour, gobo and effect wheels. When the reset of the fixture is finished, the display will show the **"FCAL"** message. Press **[Enter]** to repeat the calibration or **[Mode]** to return to the **"Adj"** menu.

## 2. Calibration via an external controller

Press **[Enter]** and the **[Up]** and **[Down]** keys in order to display the following messages: **"Colo, EFEC, rGob, Grot"** - calibration parameters. Select one of them and press **[Enter]**. Now you can calibrate the colour, gobo and effect wheels by your controller. The DMX calibration protocol is described in the table mentioned below.

### DMX Calibration Protocol:

DMX Channel	1	2	3	4	5	6	7	8
Function	COL.	-	EFEC.	RGOB	GROT	-	COLOURS	-
	CALIBRATION 0 - 255	-	CALIBRATION 0 - 255	CALIBRATION 0 - 255	CALIBRATION 0 - 255	-	STANDARD PROTOCOL	-
SMOOTH MICROSTEP MOVEMENT								

9	10	11	12	13	14	15	16
EFFECT (PRISM)	PRISM ROTATION	ROTATING GOBOS	GOBO ROTATION	-	FOCUS	STROBE	DIMMER
STANDARD PROTOCOL	STANDARD PROTOCOL	STANDARD PROTOCOL	STANDARD PROTOCOL	-	STANDARD PROTOCOL	STANDARD PROTOCOL	STANDARD PROTOCOL

After having calibrated the desired functions press **[Enter]** to confirm (or **[Mode]** to cancel and return to the menu without reset by the **"ArES"** function) and use the **"ArES"** function in order to write the calibration values to the memory (EEPROM) and to reset the fixture in order to check the new adjusted positions of the colour, effect and rot. gobo wheels and gobo indexing.

## 8. 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 also appear on the display if the lamp doesn't ignite within 28 seconds. The **ARENA PROFILE SPOT** will store this information and automatically ignite the lamp when the 5 minutes period has expired.

### LAEr

The fixture attempted ignition of the lamp seven times unsuccessfully (the HEAt message appeared six times before), and the display shows "LAEr", meaning that the lamp could be damaged or even missing, the fixture is over-heating (this can occur if the ambient temperature is 45° C or more) or there could be a failure of the igniter or the ballast. Please install or replace the lamp, check the ambient temperature or contact your dealer if the situation was not caused by the lamp.

### AbEr

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

### CoEr

(Color wheel error) This message will appear after the fixture resets 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 colour wheel is not located in the default position after reset.

### rGEr

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

### IGEr

(Rotating gobo indexing error) This message will appear after the fixture resets and if the magnetic indexing circuit malfunctions (sensor failed or magnet missing) or the stepper 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*

(Prism wheel error) This message will appear after the fixture resets if the magnetic indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driver circuit on the main PCB). The prism-wheel is not located in the default position after the reset.

## *FtEr*

This error message informs you that the fixture was overheating (occurred if the ambient temperature is 45° 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 HEAt message meaning the lamp is too hot (explanation see previous page).

## *SnEr*

This message appears if the lamp lighting sensor has failed. Please contact your dealer.

## *PoEr*

This message will appear if the fixture was recently disconnected from the power supply.

## *PAEr*

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

## *TlEr*

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

## *FrEr*

This message will appear if the frequency of the power is not standard 50 or 60 Hz.

## 9. Technical specifications

### Power supply

US/Canadian -model: 120V AC, 60 Hz (default) Internally changeable to 100/220/240 V 50/60Hz

Power consumption: 400 W

Fuse: T 3.15A, 250V

### Lamp

MSD/HSD 250 120V GY-9.5

### Optical System

-High luminous-efficiency parabolic mirror and double condenser system

-Standard 15° focused beam angle

-Optional 12° and 18° lens

-All lenses are anti-reflection coated

### Colours

- 11 interchangeable dichroic-filters plus white

- Colour-wheel with variable rotation speed

### Rotating gobos

- 4 metal gobos, 1 glass gobos and 1 dichroic gobo rotating in both directions at different speeds

- Gobo indexing

- Rotating gobo-wheel cont. rotation

- Outside diameter 27 mm, image diameter 23 mm.

### Strobe

- Strobe effect with variable speed (1 - 10 flashes per second)

### Dimmer

- Smooth dimmer from 0 - 100 %

### Prism

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

### Focus

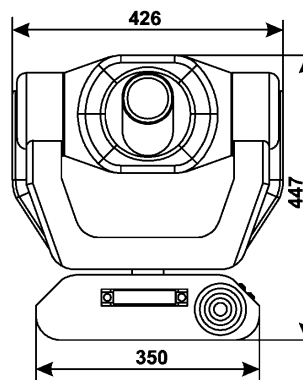
- Motorized focus from near to far

### Motor

- 10 high quality stepper motors controlled by microprocessors

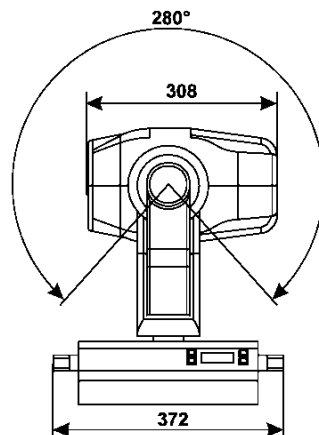
## Electronics

- Digital serial input DMX-512
- 16 control-channels (full 16 bit protocol):
- Channel 1: Panning yoke movement 8 bit
- Channel 2: Tilting yoke movement 8 bit
- Channel 3: Fine Panning yoke movement 16 bit
- Channel 4: Fine Tilting yoke movement 16 bit
- Channel 5: Pan/Tilt speed
- Channel 6: Fan speed (FANTROL), On/Off lamp, reset
- Channel 7: Colours
- Channel 8: No function
- Channel 9: Prism wheel
- Channel 10: Prism rotation
- Channel 11: Rotating gobos
- Channel 12: Gobo rotation, gobo indexing
- Channel 13: No function
- Channel 14: Focus
- Channel 15: Shutter, strobe
- Channel 16: Dimmer



## Pan/Tilt

- Pan movement range 530°
- Tilt movement range 280°
- 8/16-bit movement resolution
- Automatic PAN / Tilt position correction (APTC)
- Maximum PAN movement 530° in 2.65 s
- Maximum TILT movement 280° in 1.68 s



## Rigging

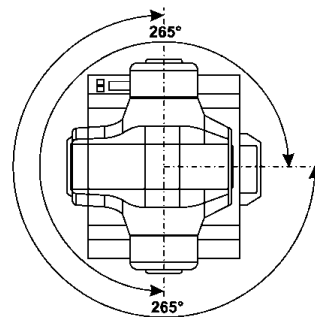
- Stands directly on the floor
- Mounts horizontally or vertically with 2 clamps
- 2-truss orientation
- Safety cable attachment point

## Temperatures

- Maximum ambient temperature  $t_a$ : 45° C
- Maximum housing temperature  $t_B$  (steady): 80° C

## Dimensions and weight

- Length of base (including handles): 372 mm
- Width of yoke: 426 mm
- Height (head horizontal): 447 mm
- Weight (net): 16 kg
- Shipping weight: 25 kg



## 10. Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and fog 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!



**DANGER!**  
**Disconnect from the power supply before starting any Maintenance work**

The objective lens may require weekly cleaning as fog fluid tends to build up residue, which reduces the light output very quickly. The cooling fans should also 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.

To ensure proper functioning of the gobo wheel, we recommend lubrication in six-month intervals. Do not use an excessive amount of oil so as to avoid oil running out across the gobos when the gobo wheel rotates.

### Replacing the fuse

If the lamp burns out, it is possible that the the fuse for the lamp fixture might blow as well. Only replace this fuse with a fuse of same type and rating (T 3.15 A, 250 V slow BLO).

**Before replacing the fuse, unplug power supply.**

#### Procedure:

**Step 1:** Unscrew the fuse holder on the rear panel with a fitting screwdriver from the housing (anti-clockwise).

**Step 2:** Remove the old fuse from the fuse holder.

**Step 3:** Install the new fuse in the fuse holder.

**Step 4:** Replace the fuse holder in the housing and screw the fuse holder back in place.

## 11. Appendix

We hope you will enjoy your **ARENA PROFILE SPOT**. We can assure you that this fixture will give you many years of reliable service if you follow the instructions outlined in this manual.

Should you have further questions, do not hesitate to contact your local dealer.

**Please note: errors and omissions for all information given in this manual excepted. All information is subject to change without prior notice. Any claim due to missing or incorrect information in this manual is herewith excluded!**

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