YPOC PRO 250

Instruction Manual

from software version 1.0
(instruction version 1.05)

GLP

GERMAN LIGHT
PRODUCTS

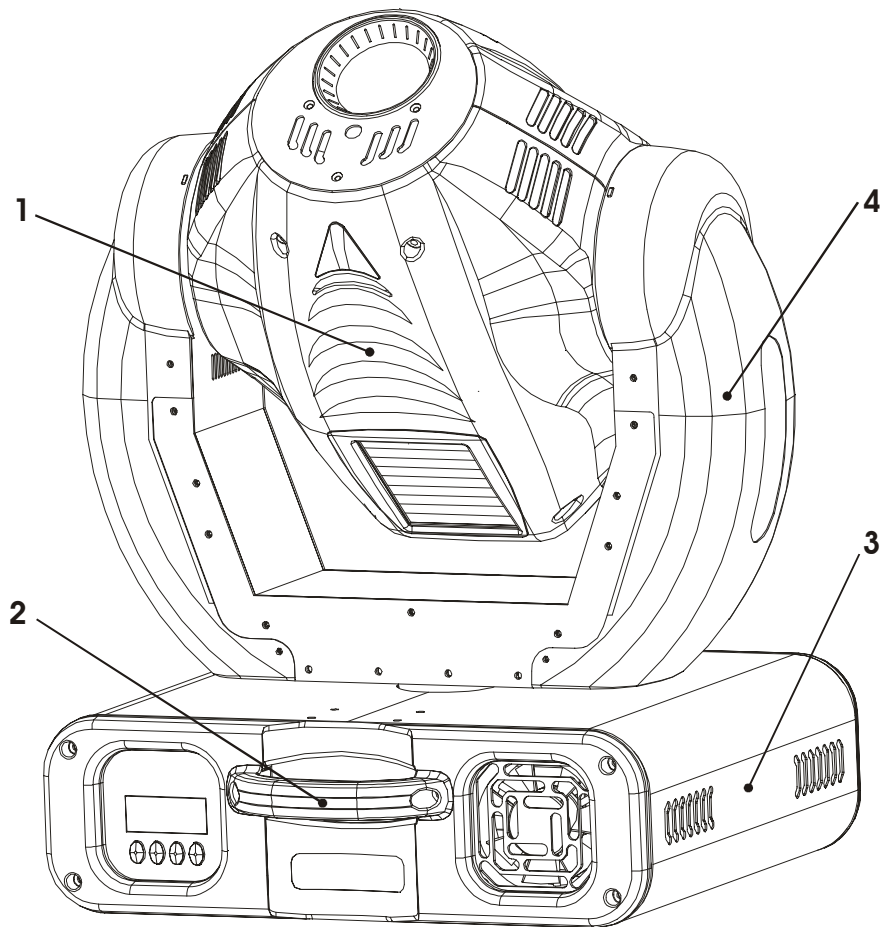e-mail: service@glp.de
Internet: http://www.glp.de

Notes:

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Table of contents

1   Description of Device

1. Moving Head
2. Carrying handles
3. Base casing
4. Arm

5. Up- button
6. Down- button
7. Enter- button
8. Mode- button
9. LED- Display
10. Software- Update
    connector
11. Microphone- intensity
12. DMX- Input
13. DMX- Output
14. Power ON/OFF
15. Micro fuse
16. Fan (air inlet)
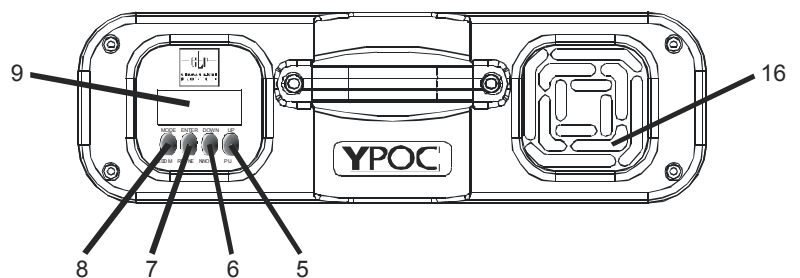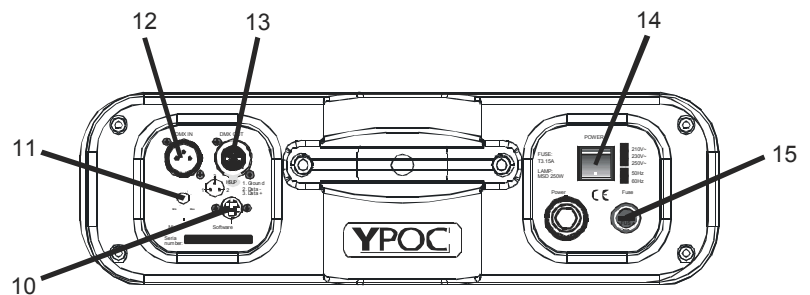
1.1 Safety Instructions

> The **YPOC 250 PRO** is a High-Tech Product. To guarantee a smooth operation, it is necessary to keep following rules.
> The manufacturer of this device will not take responsibility of damages through disregard of the information in this manual. Warranty adjustments will be cancelled.

1. Make sure before putting into operation, that the fan and the air inlets are clean and not blocked by anything.

2. **Attention:** Don't touch the device during the operation. This can cause injuries or damages.

3. **Unplug the YPOC 250 PRO from the AC outlet before any service.**

4. It is necessary to wait at least 30 minutes after disconnecting the AC before you open the **YPOC 250 PRO**. Please do not touch the bulb of the lamp if you are not absolutely sure it is cold.   **-- Danger of BURNING --**

5. Never look directly into the beam of the lamp. You risk injury of your retina and blindness.

6. Pay attention of the maximum lamp operation time. You have to change it if the lamp shows any deformations or damages. The same is with all glass components, color filters, lenses and mirrors.

7. To allow a secure operation, follow also the Installation guide described in chapter 2. Operating the **YPOC 250 PRO** without suited safety aids like Safety cables or clamps/hooks can increase the risk of an accident.

8. The installation should be done by qualified staff only. You need to pay attention to the common rules of technology that are not explicit mentioned in this manual.

9. Use only original spare parts. Any structural modification will cancel all warranty adjustments.

> LASERSTRAHLUNG
> NICHT IN DEN STRAHL BLICKEN
> LASER KLASSE 3R
> NACH DIN-EN 60825-1/11:2001
> P_a 5mW; λ = 635-650 nm
>
> **Attention:** Laser of class 3R may injure your retina after a short residence time even without any optical instrument. **Avoid any direct exposure of your eyes!**

2 Preparation and Installation

2.1 *Mounting*

The **YPOC 250 PRO** is fully operational whether it hangs or is mounted to the wall. It can also be operated while standing on the floor. Keep a safety distance of 0.5 m towards any easy inflammable materials (decoration etc.). Install a safety wire that can hold at least 10 times the weight of the fixture. Never use the carrying handles for secondary attachment.
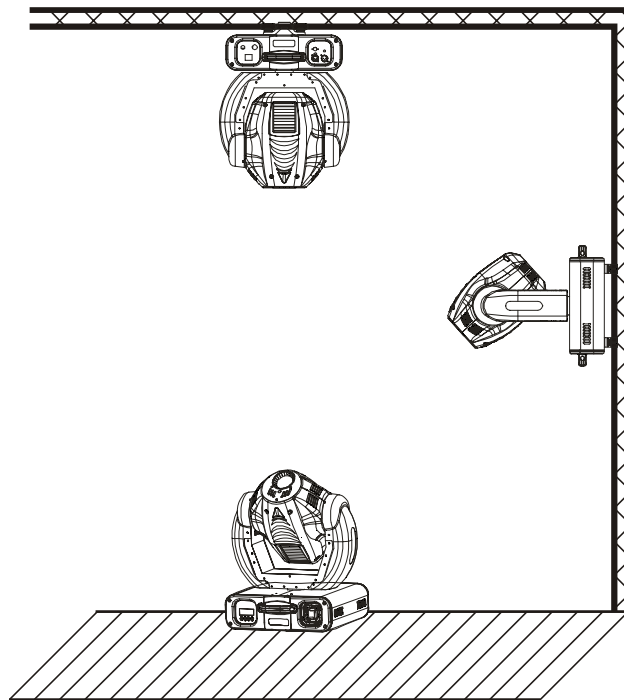
⚠	**Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217. Regulations of show laser BGV B2 (11.2001), E DIN 56912 part 6, DIN-EN 60825 part 1+2. The installation should be done by qualified staff only.**

2.1.1 *Clamps*

There are two major possibilities to mount the **YPOC 250 PRO**. A so called Camlock system or direct mounting of clamps. In both cases you have to regard a sufficient stability of the system. For installation instructions please see also printing on the backside of the case.

a) Camlock system: This system allows you a fast and efficient setup of clamps. Attach the two camlocks to the designated position **C1 and C2** on the backside of the case and close the locks by turning them 90°. Verify the secure fit of the camlock system. The clamps themselves are directly attached permanently on the camlocks.
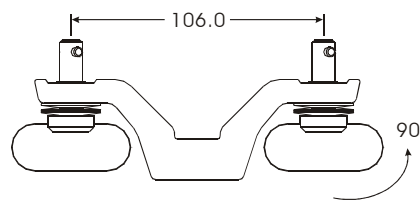
b) Use two clamps direct on the backside of the **YPOC 250 PRO** to mount the unit on a truss (each two opposite threads **A1/A2** or **A3/A4** max. M10x20).
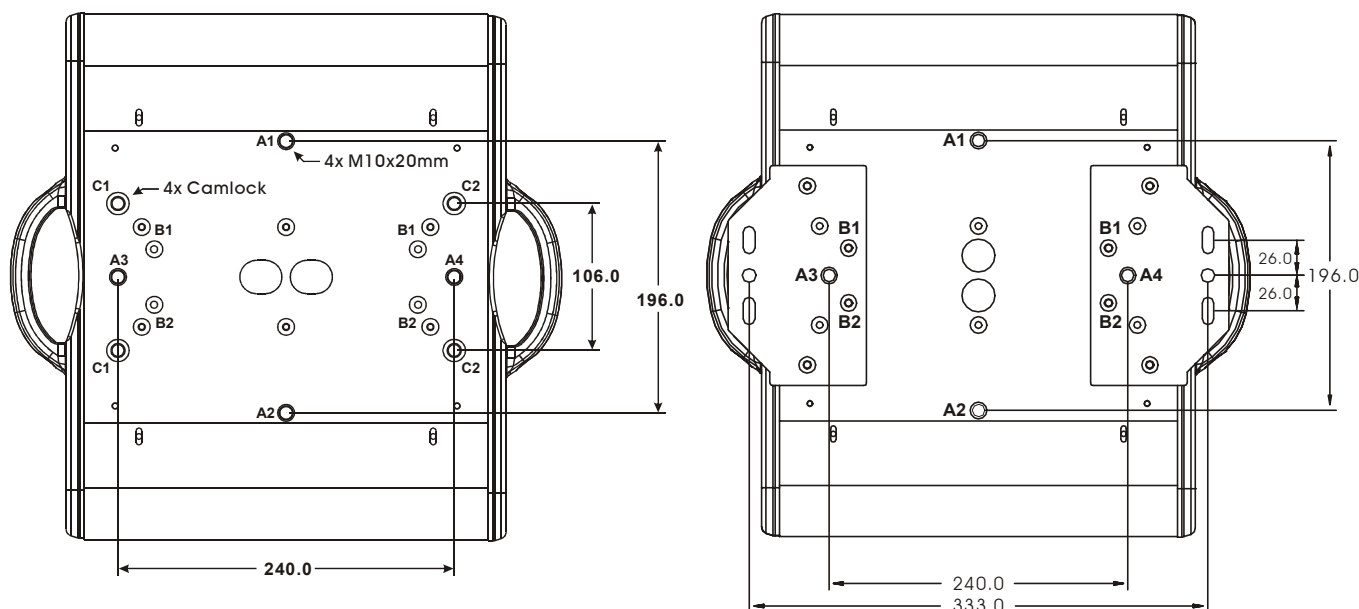
2.1.2 Mounting plate (optional)

For a permanent installation of the **YPOC 250 PRO** you can use an optional mounting plate to fix the unit directly onto a wall. The plate is screwed on the system at the positions **B1/B2** with screws M6x20.

2.2 Secure the YPOC 250 PRO

Regardless of the rigging of the **YPOC 250 PRO** you have to use a stipulated safety wire. Therefore you have to thread to safety wire through to two provided holes on the backside of the fixture and connect it with the truss-support. Pay attention to a safe and proper fastening.

2.3 Connections

2.3.1 Power supply

230 Volt, two-pin earthed plug 50 Hz,

Connected load 500W <=> 2,2 A (blind current compensated).

2.3.2 DMX

DMX 512 Standard input/output. See also printing on the case for the right pin assignment.

[+] = Pin 3 / [-] = Pin 2 / [Ground] = Pin 1

The DMX- Addressing starts at the DMX- Address [001].

2.4 Fuse

The **YPOC 250 PRO** electronic system is protected by a 5x20 mm micro-fuse T3,15A.

Please see also the printing on the **YPOC 250 PRO** casing for more details.

Attention:

- **Disconnect AC mains supply before changing a fuse!**

- **Use only the original declared fuse type!**

3 The Menu Field

You'll find the control board on the side part of the base. It allows you to make all necessary adjustments of the **YPOC 250 PRO.** With the **Mode**-key you get into the main menu. Afterwards you can navigate throug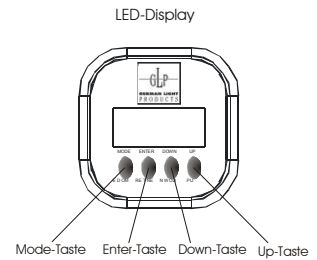h the menu with the **Up/Down**-keys. Push the **Enter**-key to get in the next menu level or to confirm your settings. Make them and set functions **ON/OFF** with the **Up/Down**-keys. Confirm and save it with the **Enter**-key (the display shows *OK*). Push the **Mode**-key to cancel the entry and go back to the main menu.

LED-Display

Mode-Taste Enter-Taste Down-Taste Up-Taste

← MODE - ENTER →

Level 1	Level 2	Level 3	Remark
D001			Define the DMX start address
TEST			Test program of all functions
AUDI	ASLW		Self-running audio program (slow)
	AFST		Self-running audio program (fast)
	MSTR		Master for the audio program
	SVPT		Basic position for the audio program
	SIZE		Size for the audio program (NORM-BIG-MIDL-SMAL)
LAMP			Switch on/of the lamp direct at the **YPOC 250 PRO**
RESE			Reset
TIME	POWR		Running time of the fixture (no destructible)
	LA1		Running time of the lamp (erasable)
	LA2		Running time of the lamp (no destructible)
RPAN			Reverse Pan-direction
RTLT			Reverse Tilt-direction
SPEC	MANU		Manual drive of all device functions
	LAAU		Automatic lamp start
	DLOF		Switch off lamp via DMX
	DMXI		Reed out actual DMX-values
	DISP	D ON	Display On/Off
		REV	Twist the display
	TEMP		Reed out internal temperature
	FANS	HIGH	Maximum cooling fan velocity
		REG	Automatic cooling fan control
		LOOF	Low cooling fan speed → lamp off
		LOHI	Low cooling fan speed → automatic
	ADJU	CODE	Use the code for entering the calibration menu (for authorized persons only)
		XXXX	
		COLO	Calibration of the color wheel
		GOB1	Calibration of the gobo wheel 2
		GOB2	Calibration of the gobo wheel 2
		SHTR	Calibration of the shutter
		PRIS	Calibration of the prism wheel
		IRIS	Calibration of the iris
		POFS	Calibration of the Pan-Offsets
		TOFS	Calibration of the Tilt-Offsets
		CLRE	Settings in the internal memory (super-user only)
		ARES	Adjust Reset (wheels stand still after the reset)
		VTIL	Software version Tilt-board
		VTR1	Software version driver board 1
		VTR2	Software version driver board 2
		VTR3	Software version driver board 3
	DFSE		Call on the default function values
	FEED		Pan/Tilt feedback (error correction) On/Off
	EFLG		Correction of faults

← DOWN - UP →

3.1 Adjust the DMX- Address (D001)

Right after turning on the **YPOC 250 PRO** you can see the current DMX- Address. If there is no DMX- Signal the display flashes.

```
D001
```

For the address setting please follow this procedure:

1. Switch On the **YPOC 250 PRO** and wait until the fixture reset has finished ('RESE' is flashing in the display).

2. Press the **Mode-**key in order to access the main menu. Browse through the menu by pressing the **Up/Down-**keys until the display shows D001. Confirm by pressing the **Enter-**key (the decimal point is flashing)

3. Use the **Up/Down-**keys to select the desired address. Confirm the setting by pressing the **Enter-**key (the display shows OK) or press the **Mode-**key to cancel.

The DMX- Address is stored also while switching off the **YPOC 250 PRO**!

3.2 The Test Program (TEST)

```
TEST
```

The **Test-**Program allows you to run a complete self test procedure of all functions. Press **Enter** to confirm or **Mode** to cancel.

3.3 The Audio Program (AUDI)

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AUDI
```

The **Audio-**menu allows you to run a stand alone audio program. This chaser can run either fast or slow. AFST: Every sound impulse on step of the chaser. ASLW: Every second sound impulse one step of the chaser.

In addition you can choose a basic position for this audio chaser. Use either the internal manual mode or an external controller to set the desired Pan/Tilt position. Confirm this setting in the SVPT menu by pressing the **Enter-**key.

You can also set the size of the audio chaser in the SIZE menu. Choose between: NORM (no basic position has to bee chosen), BIG, MIDL or SMAL).

If you want to run the systems simultaneously, one of the **YPOCs** must be switched as the master. All others must be "Slave" Master = OFF. **Notice:** The Audio function is only working if **no** DMX is connected. This function can work e.g. on small events or as an emergency program.

3.4 Lamp On/Off (LAMP)

LAMP

Use the **Up/Down**-keys to select lamp ON or lamp OFF Press **Enter** to confirm or **Mode** to cancel and return to the main menu. (The lamp OFF command is only working if the shutter is closed at the same time. Use an external controller or the manual drive mode, see 3.9.1)

3.5 Reset (RESE)

RESE

Press the **Enter**-key to run a reset of all fixture functions (RST is shown in the display).

3.6 Operating time of lamp and unit (TIME)

TIME

By this option can read out three different operating times of the fixture.

POWR	Operating time of the fixture (no destructible).
LA 1	Operating time of the lamp (erasable). Push the **Up/Down**-keys at one time to delete this operating time.
LA 2	Operating time of the lamp (no destructible).

3.7 Invert Pan Movement (RPAN)

RPAN

This function allows you to invert the Pan movement. Use the **Up/Down**-keys to select invert ON or OFF. Press **Enter** to confirm or **Mode** to cancel and return to the main menu.

3.8 Invert Tilt Movement (RTLT)

```
RTLT
```

This function allows you to invert the Tilt movement. Use the **Up/Down**-keys to select invert ON or OFF. Press **Enter** to confirm or **Mode** to cancel.

3.9 Special Functions (SPEC)

```
SPEC
```

This menu allows you to enter further special functions of the **YPOC 250 PRO.**

In detail they are:

3.9.1 Manual Drive (MANU)

```
MANU
```

This function allows you to drive all the fixture functions manually. Select the desired function with the **Up/Down**-keys and confirm with **Enter**. Now choose the desired value with the **Up/Down**-keys and confirm again with **Enter** or cancel and return to the menu with the **Mode**-key.

Function	Value	Remark
PAN	000 – 255	Pan Position
TILT	000 – 255	Tilt Position
COLO	000 – 255	Color wheel
GOB1	000 – 255	Gobo wheel 1
GROT	000 – 255	Gobo rotation
GOB2	000 – 255	Gobo wheel 2
SHUT	000 – 255	Shutter / Strobe function (the lamp strikes at DMX 255 if dimmer is "open" = DMX 255)
DIMR	000 – 255	Dimmer
FOCU	000 – 255	Focus
PRIS	000 – 255	Prism (000 – 127) / Stop / Prism- rotation
ORIS	000 – 255	Iris
SPEC	000 – 255	Lamp Off, Reset, Laser, ...

3.9.2 Lamp On automatically (LAAU)

```
LAAU
```

This function enables to switch On the lamp automatically after switching On the fixture. Use the **Up/Down**-keys to select ON if you want to switch on

the lamp automatically after switching on the fixture or **OFF** if you don't want this function. Press **Enter** to confirm or **Mode** to cancel and return to the menu.

If you have chosen **OFF** you have the possibility to start the lamp either via DMX or direct at the **YPOC 250 PRO** in the Lamp menu.

3.9.3 Lamp Off via DMX (DLOF)

DLOF

This function enables to switch off the lamp via DMX or not. Use the **Up/Down**-keys to select **ON** if you want to switch off the lamp via DMX or **OFF** if you don't want this function. Press **Enter** to confirm or **Mode** to cancel and return to the menu.

If you have chosen **OFF** you have the possibility to switch off the lamp either direct at the **YPOC 250 PRO** in the Lamp menu or switch off the main switch.

3.9.4 DMX Input (DMXI)

DMXI

Readout DMX values of each channel received by the fixture. Use the **Up/Down**-keys to select desired channel and press **Enter** to read its value.

Function	Value	Remark
PAN	000 - 255	Pan Position
TILT	000 - 255	Tilt Position
COLO	000 - 255	Color wheel
GOB1	000 - 255	Gobo wheel 1
GROT	000 - 255	Gobo rotation
GOB2	000 - 255	Gobo wheel 2
SHUT	000 - 255	Shutter / Strobe function
DIMR	000 - 255	Dimmer
FOCU	000 - 255	Focus
PRIS	000 - 255	Prism wheel
IRIS	000 - 255	Iris
SPEC	000 - 255	Lamp Off, Reset, Laser, ...
MOVE	000 - 255	Movement
SPED	000 - 255	Speed Pan/Tilt

3.9.5 Display [DISP]

DISP

Use this function to choose between different display indications. Use the **Up/Down**-keys to select desired function and press **Enter** to confirm or **Mode** to cancel and return to the menu.

D ON	Display On/Off (If you've chosen OFF, the display will go out within 15 seconds after the last input. The next key touch will re-activate the display).
REV	Turn around the display (reverse). **Note:** You can also do this by pushing the **Up/Down**-keys at the same time.

3.9.6 Fixture Temperature [TEMP]

TEMP

This function allows you to read out the actual temperature of the **YPOC 250 PRO**. Press **Enter** to confirm or **Mode** to cancel. Inside temperatures below 80°C are not critical. 80°C and more lead the lamp being switched off at a critical point. Please note for a save operation that the outside temperature should not exceed 45°C.

3.9.7 Fan Control [FANS]

FANS

By using this function you can choose between 4 types of fan speed operations. Use the **Up/Down**-keys to select desired function and press **Enter** to confirm or **Mode** to cancel and return to the menu.

HIGH	The cooling fan works continuously at max. speed.
REG	The fan automatically raises its speed in order to control inside temperature of the fixture.
LOOF	The fan keeps the adjusted low speed until the temperature exceeds max. inside temperature, then the **YPOC 250 PRO** automatically **switch off** the lamp.
LOHI	The fan keeps the adjusted low speed until the temperature exceeds max. inside temperature, then the **YPOC 250 PRO** automatically switch from low to high fan speed.

In addition to these settings, you can set to fan speed to minimum via DMX (Special channel, DMX value 224..229). This will last until a temperature of 90° is reached.

3.9.8 Adjustments and Calibrations (ADJU)

ADJU

By this function you can adjust and calibrate the positions of the different wheels and other motors. This can be necessary after a service or repair work.

For this function you have to entry the fixture code. This work should be done only by authorized persons.

Use the **Up/Down-**keys to select desired function and press **Enter** to confirm or **Mode** to cancel and return to the menu. Use now the **Up/Down-**keys to set the adjustment values and confirm once more with the **Enter-**key or cancel with the **Mode-**key.

Function	Value	Remark
ADJU	CODE XXXX	Adjustments in the internal setup are code protected (for authorized persons only).
COLO	- 99 - + 99	Adjustment of the Color wheel
GOB1	- 99 - + 99	Adjustment of the Gobo wheel 1
GOB2	- 99 - + 99	Adjustment of the Gobo wheel 2
SHTR	- 99 - + 99	Adjustment of the Shutter
PRIS	- 99 - + 99	Adjustment of the Prism wheel
IRIS	- 99 - + 99	Adjustment of the Iris
POFS	- 99 - + 99	Adjustment of the Pan-Offsets
TOFS	- 99 - + 99	Adjustment of the Tilt-Offsets
CLRE	Adjustments in the internal circuit.	
ARES	- 99 - + 99	Adjust Reset (wheels stand still after the reset)
VTIL	- 99 - + 99	Software version of Tilt-board
VTR1	- 99 - + 99	Software version of Head- board
VTR2	- 99 - + 99	Software version of Base- board

3.9.9 Default Settings (DFSE)

DFSE

Press **Enter** to reset all fixture personalities (not the adjusted functions) to the default values. On the display will appear OK to indicate that the defaults are set.

Function	Display	Default Settings			
DMX Address	*D001*	*D001*			
Pan reverse	*RPAN*	*ON*	*OFF* ✓		
Tilt reverse	*RTLT*	*ON*	*OFF* ✓		
Automatic lamp on	*LAAU*	*ON*	*OFF* ✓		
Lamp on via DMX	*DLOF*	*ON* ✓	*OFF*		
Display	*DISP*	*D ON* ✓			
Cooling fan	*FANS*	*HIGH*	*REG* ✓	*LOOF*	*LOHI*
Feedback	*FEED*	*ON* ✓	*OFF*		

3.9.10 Feedback (*FEED*)

> *FEED*

The **YPOC 250 PRO** is provided with a automatic position correction (feedback) for the Pan and Tilt movement. Use the **Up/Down**-keys to select *ON* if you want to enable the feedback function or *OFF* if you don't want this function. Press **Enter** to confirm or **Mode** to cancel and return to the menu.

3.9.11 Correction of faults (*EFLG*)

> *EFLG*

(Function available for authorized persons only)

3.10 Error and Information Messages

HEAT	This message appears if you try to switch on the lamp within 5 minutes after having switched off (lamp too hot). The message will appear on the display if the lamp doesn't ignite within 20 seconds. The fixture will store this command and automatically ignite the lamp after 5 minutes.
LAER	After the ignition of the lamp was two times not successful the display will show *LAER*. That means the lamp could be damaged or even missed, the fixture is overheating or there could be a failure on the igniter or ballast. Switch off the power supply and solve the possible problem.
OTMP	This error message informs you that the fixture was overheating and that the relay switches off the lamp. Pleas look for possible reasons (fan faulty, air in/outlets blocked or very dirty, lamp broken or very old, too high ambient temperature. Switch off the power supply and solve the possible problem.

RSER	This message informs you that one of the fixture function wasn't able to do its reset correct (magnetic sensor, stepping motor, driver on the PCB, cables, etc.). Repair the defect and start the fixture again.

4   DMX Channel Selection (DMX Protocol)

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 530°	min. 2,65 s	0..255	00..FF	0..100
2) PAN-fine	High- Pos ... High- Pos + 2,1° (16 Bit)		0..255	00..FF	0..100
3) Tilt-coarse	0 .. 285°	min. 1,8 s	0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1,1° (16 Bit)		0..255	00..FF	0..100
5) Color	open (fast)	Chaser from color to color max. 140 BPM => 0,43 s	0..1	00..01	0,2
	open / color 1 (fast)		2..3	02..03	1,0
	color 1, Brilliant Blue (fast)		4..5	04..05	1,8
	color 1 / color 2 (fast)		6..7	06..07	2,5
	color 2, Blue (fast)		8..9	08..09	3,3
	color 2 / color 3 (fast)		10..11	0A..0B	4,1
	color 3, Blue Purple (fast)		12..13	0C..0D	4,9
	color 3 / color 4 (fast)		14..15	0E..0F	5,7
	color 4, Magenta (fast)		16..17	10..11	6,5
	color 4 / color 5 (fast)		18..19	12..13	7,3
	color 5, Pink (fast)		20..21	14..15	8,0
	color 5 / color 6 (fast)		22..23	16..17	8,8
	color 6, Orange (fast)		24..25	18..19	9,6
	color 6 / color 7 (fast)		26..27	1A..1B	10,4
	color 7, Yellow (fast)		28..29	1C..1D	11,2
	color 7 / color 8 (fast)		30..31	1E..1F	12,0
	color 8, Cyan (fast)		32..33	20..21	12,7
	color 8 / color 9 (fast)		34..35	22..23	13,5
	color 9, Turquoise (fast)		36..37	24..25	14,3
	color 9 / color 10 (fast)		38..39	26..27	15,1
	color 10, Green (fast)		40..41	28..29	15,9
	color 10 / color 11 (fast)		42..43	2A..2B	16,7
	color 11, Red (fast)		44..45	2C..2D	17,5
	color 11 / open (fast)		46..47	2E..2F	18,2
	open (fast)		48..63	30..3F	19,0
	open (slow)	Chaser from color to color max. 70 BPM => 0,86 s	64..65	40..41	25,3
	open / color 1 (slow)		66..67	42..43	26,1
	color 1, Brilliant Blue (slow)		68..69	44..45	26,9
	color 1 / color 2 (slow)		70..71	46..47	27,6
	color 2, Blue (slow)		72..73	48..49	28,4
	color 2 / color 3 (slow)		74..75	4A..4B	29,2
	color 3, Blue Purple (slow)		76..77	4C..4D	30,0
	color 3 / color 4 (slow)		78..79	4E..4F	30,8
	color 4, Magenta (slow)		80..81	50..51	31,6
	color 4 / color 5 (slow)		82..83	52..53	32,4
	color 5, Pink (slow)		84..85	54..55	33,1
	color 5 / color 6 (slow)		86..87	56..57	33,9
	color 6, Orange (slow)		88..89	58..59	34,7

Channel	Function	Time and Value	DMX	HEX	%
	color 6 / color 7 (slow)		90..91	5A..5B	35,5
	color 7, Yellow (slow)		92..93	5C..5D	36,3
	color 7 / color 8 (slow)		94..95	5E..5F	37,1
	color 8, Cyan (slow)		96..97	60..61	37,8
	color 8 / color 9 (slow)		98..99	62..63	38,6
	color 9, Turquoise (slow)		100..101	64..65	39,4
	color 9 / color 10 (slow)		102..103	66..67	40,2
	color 10, Green (slow)		104..105	68..69	41,0
	color 10 / color 11 (slow)		106..107	6A..6B	41,8
	color 11, Red (slow)		108..109	6C..6D	42,5
	color 11 / open (slow)		110..111	6E..6F	43,3
	open (slow)		112.127	70..7F	44,1
	color rotation STOP		128..129	80..81	50
	color rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	color rotation, fast-slow, CCW	max. 2,9 turns/sec.	192..253	C0..FD	76..98
	Audio color chaser slow	each 4th sound impulse → new color	254	FE	99
	Audio color chaser fast	each sound impulse → new color	255	FF	100
6) Gobo 1	Gobo 1 (open, fast)	Chaser from gobo to gobo max. 100 BPM => 0,6 s	0..7	0..7	0..2,9
	Gobo 2 (fast)		8..15	8..F	3..5,9
	Gobo 3 (fast)		16..23	10..17	6..8,9
	Gobo 4 (fast)		24..31	18..1F	9..11,9
	Gobo 5 (fast)		32..39	20..27	12..14,9
	Gobo 6 (fast)		40..47	28..2F	15..17,9
	Gobo 7 (fast)		48..55	30..37	18..20,9
	Gobo 8 (fast)		56..63	38..3F	21..23
	Gobo 1 (open, slow)	Chaser from gobo to gobo max. 40 BPM => 1,51 s	64..71	40..47	24..26,9
	Gobo 2 (slow)		72..79	48..4F	27..29,9
	Gobo 3 (slow)		80..87	50..57	30..33,9
	Gobo 4 (slow)		88..95	58..5F	34..36,9
	Gobo 5 (slow)		96..103	60..67	37..39,9
	Gobo 6 (slow)		104..111	68..6F	40..42,9
	Gobo 7 (slow)		112..119	70..77	43..45,9
	Gobo 8 (slow)		120..127	78..7F	46..49
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	Gobo rotation, fast-slow, CCW	max. 1.0 turns/sec.	192..253	C0..FD	76..98
	Audio gobo chase, slow	each 4th sound impulse → new gobo	254	FE	99
	Audio gobo chase, fast	each sound impulse → new gobo	255	FF	100
7) Gobo 1 Posi./Rot	Gobo position 0 ... 540°		0..127	00..7F	0..49
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation, slow-fast, CW	min. 2,0 turns/h	130..191	82..BF	51..75
	Gobo rotation, fast-slow, CCW	max. 3,8 turns/sec.	192..253	C0..FD	76..100
	Audio gobo rotation, slow	each 4th sound impulse → new position	254	FE	99
8) Gobo 2	Gobo 1 (open, fast)	Chaser from gobo to gobo max. 100 BPM => 0,6 s	0..3	0..3	0..1
	Gobo 2 (fast)		4..7	4..7	2..2,9
	Gobo 3 (fast)		8..11	8..B	3..4
	Gobo 4 (fast)		12..15	C..F	5..5,9
	Gobo 5 (fast)		16..19	10..13	6..7
	Gobo 6 (fast)		20..23	14..17	8..8,9
	Gobo 7 (fast)		24..27	18..1B	9..10,9

Channel	Function	Time and Value	DMX	HEX	%
	Gobo 8 (fast)		28..31	1C..1F	11..12
	Gobo 9 (fast)		32..35	20..23	13..13,9
	Gobo 10 (fast)		36..63	24..3F	14..24,9
	Gobo 1 (open, fast)		64..65	40..41	25..25,9
	Gobo 1 (open, slow)	Chaser from gobo to	66..67	42..43	26..26,9
	Gobo 2 (slow)	gobo max. 40 BPM	68..71	44..47	27..27,9
	Gobo 3 (slow)	=> 1,51 s	72..75	48..4B	28..29
	Gobo 4 (slow)		76..79	4C..4F	30..30,9
	Gobo 5 (slow)		80..83	50..53	31..32
	Gobo 6 (slow)		84..87	54..57	33..34
	Gobo 7 (slow)		88..91	58..5B	35..35,9
	Gobo 8 (slow)		92..95	5C..5F	36..37
	Gobo 9 (slow)		96..99	60..63	38..38,9
	Gobo 10 (slow)		100..127	64..7F	39..50
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation, slow-fast, CW	min. 1,4 turns/h	130..191	82..BF	51..75
	Gobo rotation, fast-slow, CCW	max. 1.0 turns/sec.	192..253	C0..FD	76..98
	Audio gobo chase, slow	each 4th sound impulse → new gobo	254	FE	99
	Audio gobo chase, fast	each sound impulse → new gobo	255	FF	100
	Audio gobo rotation, fast	each sound impulse → new position	255	FF	100
9) Shutter	Shutter closed	Lamp OFF → ch. 14	0..15	00..0F	0..6
	Random Strobe (different pattern)		16..31	10..1F	7..11,9
	Strobe Pulse effect , slow - fast	min. frequent 0,7 Hz	32..47	20..2F	12..12,9
	Strobe effect , slow - fast	max. frequent 10 Hz	48..239	30..EF	13..93
	Shutter open (lamp start)		240..255	F0..FF	94..100
10) Dimmer	Dimmer closed - open (0% - 100%)		0..255	0..FF	0..100
11) Focus	In - out	full distance 1,5 sec.	0..255	0..FF	0..100
12) Prism	Prism swing out		0..5	00..05	0..2
	Prism position 0 ... 540°		6..127	06..7F	0..49
	Prism rotation stop		128..129	80..81	50
	Prism rotation, slow-fast, CW	min. 1,6 turns/h	130..191	80..BF	51..75
	Prism rotation, fast-slow, CCW	max. 4,4 turns/sec.	192..253	C0..FD	76..100
	Audio prism rotation, slow	each 4th sound impulse → new prism	254	FE	99
	Audio prism rotation, fast	each sound impulse → new prism	255	FF	100
13) Iris	Iris open – closed		0..127	00..7F	0..50
	Ascend with Shutter, random		128..143	80..8F	51..56
	Descend with Shutter, random		144..159	90..9F	57..62
	Ascend with Shutter, audio		160..175	A0..AF	63..68
	Descend with Shutter, audio		176..191	B0..BF	69..75
	Ascend with Shutter		192..207	C0..CF	76..81
	Descend with Shutter		208..223	D0..DF	82..87
	Pulse - effect		224..239	E0..EF	88..93
	Ascend - descend effect		240..253	F0..FD	94..99
	Iris closed		254..255	FE..FF	100
14) Special	No function		0..15	00..0F	0..6
	Gobo-shake +/- 10° slow – fast	3,5 moves / min. up to 60 moves / max.	16..31	10..1F	7..12
	Gobo-shake +/- 20° slow – fast	3,5 moves / min. up to 60 moves / max.	32..47	20..2F	13..18

Channel	Function			Time and Value	DMX	HEX	%
	Gobo-shake +/- 30° slow – fast			3,5 moves / min. up to 60 moves / max.	48..63	30..3F	19..24
	Color-chaser C / C+1 slow – fast			0,7 BPS ... 2,3 BPS => 1,43 s ... 0,43 s	64..79	40..4F	25..31
	Color-chaser C / C+2 slow – fast			0,7 BPS ... 2,0 BPS => 1,43 s ... 0,5 s	80..95	50..5F	32..37
	Audio Pan / Tilt slow			each 4th sound impulse → new position	96..111	60..6F	38..43
	Audio Pan / Tilt fast			each sound impulse → new position	112..127	70..7F	44..50
Laser	Laser flashing, random				128..143	80..8F	51..56
	Laser, audio				144..159	90..9F	57..62
	Laser blinking, slow - fast				160..175	A0..AF	63..68
	Laser flashing, slow - fast				176..191	B0..BF	69..74
	Laser ON				192..207	C0..CF	75..81
	No function				208..223	D0..DF	82..87
	Fan on min. as long as temp. < 90°C				224..229	E0..E5	88..90
	Lamp OFF (min. 3 sec.)				230..249	E6..F9	92..97
	Reset				250..255	FA..FF	98..100
15) Move-ment	no movement				0	00	0
	Movement	**Size**	**Phase**				
	PAN	1	0°		01..01	01..01	0,5
		1	90°		02..03	02..03	1,0
		1	180°		04..05	04..05	1,7
		1	270°		06..07	06..07	2,5
	PAN	2	0°		08..09	08..09	3,3
		2	90°		10..11	0A..0B	4,1
		2	180°		12..13	0C..0D	4,9
		2	270°		14..15	0E..0F	5,7
	PAN	3	0°		16..17	11..11	6,5
		3	90°		18..19	12..13	7,3
		3	180°		20..21	14..15	8,0
		3	270°		22..23	16..17	8,8
	PAN	4	0°		24..25	18..19	9,6
		4	90°		26..27	1A..1B	10,4
		4	180°		28..29	1C..1D	11,2
		4	270°		30..31	1E..1F	12
	TILT	size / phase see also PAN			32..63	20..3F	13..25
	PAN / TILT	size / phase see also PAN			64..95	40..5F	26..37
	PAN / TILT (inverse)	size / phase see also PAN			96..127	60..7F	38..50
	Circle	size / phase see also PAN			128..159	80..9F	51..62
	Circle (inverse)	size / phase see also PAN			160..191	A0..BF	63..75
	lying eight	size / phase see also PAN			192..223	C0..DF	76..87
	random movement	size see also PAN			224..255	E0..FF	88..100
16) Speed Pan/Tilt	Pan/Tilt relative movement				0..15	00..0F	0..6
	Pan/Tilt slow – fast Use this channel 14) also for the speed of the movements (channel 13).			Pan min. 530° = 200 s Pan max. 530° = 2,65 s Tilt min. 285° = 110 s Tilt max. 285° = 1,8 s	16..255	10..FF	7..100

Lamp ON	Shutter open		240..255	F0..FF	94..100
Lamp OFF	Channel 14 (min. 3 sec.) (only if shutter is closed, channel 9 = 0 ..15)		230..249	6E..9F	92..97

5   Changing the Lamp

For a frictionless operation pleas read this chapter carefully and follow all instructions.

5.1   Safety Regulations

- **Pull out the main plug!**

- Wait min. 20 minutes after the last operation to cool down the fixture.

- Don't touch the bulb of the lamp with bare fingers (this can cause damages).

- Before you put the **YPOC 250 PRO** into operation close the casing, otherwise your retina can be hurt!

5.2   Realize the Lamp Change

1. **Pull out the main plug!**

2. The lamp can be changed in a very comfortable way directly from the backside of the case without opening the head.

3. Open the four screws (1, 2, 3 and 4) of the backside lamp sheet and remove it carefully.

4. Remove the old or broken lamp by drawing it out straight from the lamp holder.

   Attention: The glass bulb of the lamp can splinter. For that reason remove the lamp with safety gloves or some cloth.

5. Put in the new lamp securely with a tight fit into the socket.

   Attention: Use only the original lamp type!

6. Pull the lamp holder safely back in the shaft and close the four screws.

7. The operating time of the lamp $LA1$ can be reseed in the $TIME$ Menu.
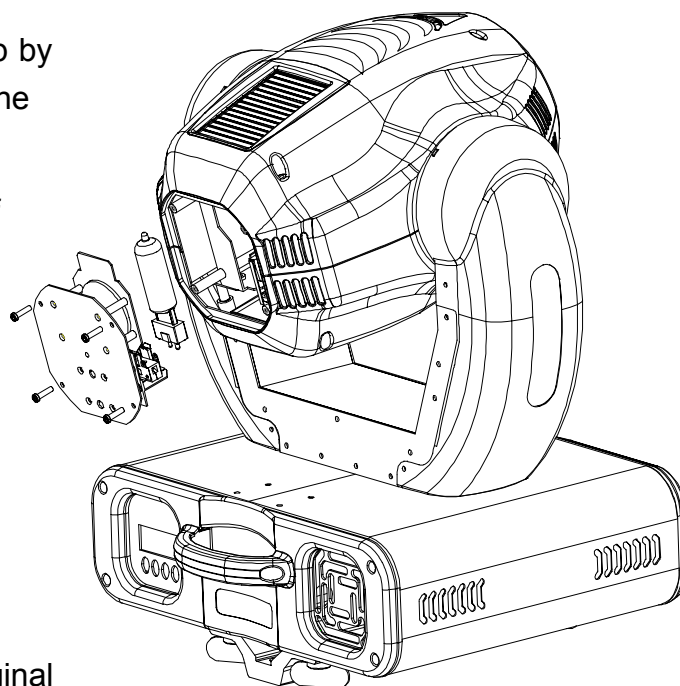
5.3 Lamp adjustment

The optimum distance between the lamp and the lens must be controlled after every lamp change. The lower deviation amount is **min. 1.0mm**. Running the fixture within a lower deviation can cause damages of lamp and/or lens.
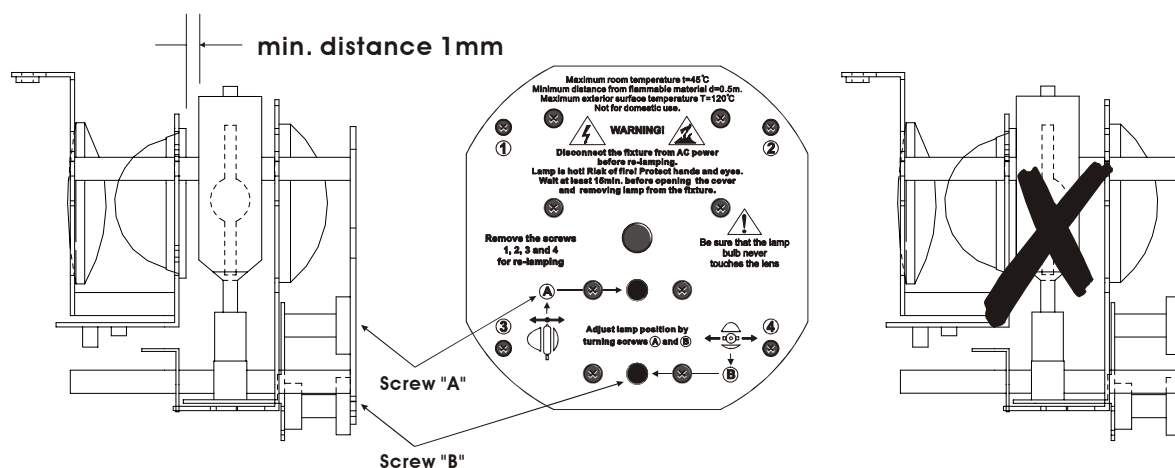
The **YPOC 250 PRO** lamp holder is aligned at the factory. Due to differences between lamps, fine adjustments may improve light performance.

Pease follow this procedure:

1. Strike the lamp (for example in the $LAMP$ menu) and wait a while until full intensity of the lamp.

2. Direct the beam straight on a flat and bright surface/wall (beam open, white, no gobo, no effects).

   Remark: As the optimum distance of the lamp from lens was adjusted during the installation or changing the lamp (by turning the screw **A**), it is necessary to adjust only the second position by turning the screw **B**, in order to center the so-called **'Hot-Spot'** (the brightest part of the beam).

3. If the Hot-Spot is not in the middle, you can adjust this by turning the screw **B**.

4. If the Hot-Spot is too bright and the beam not even, you can adjust this again by turning the screw **A**. clockwise (get nearer towards the reflector). **Remark:** A complete even beam can't be reached because of the design of the lamp.

5. Appears the beam more bright at the edge, you can adjust this by turning the screw **A** counter-clockwise (get nearer towards the lens).

   Attention: Never remain the minimum distance between lamp and lens (1.0 mm). Is there any doubt, open the fixture and control the distance!

6   Changing a Gobo

The **YPOC 250 PRO** is fitted with standard gobos (outside diameter 27 mm, image size 23 mm). You can use ether steel or glass gobos.
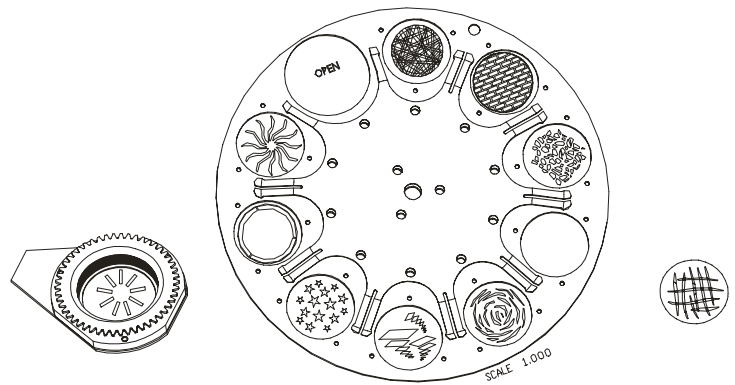
6.1   Safety Regulations

- **Pull out the main plug!**

- Wait min. 20 minutes after the last operation to cool down the fixture.

- Before you put the **YPOC 250 PRO** into operation close the casing, otherwise your retina can be hurt!

6.2   Realize the Gobo Change

1. **Pull out the main plug!**

2. Open the upper shell of the head casing by loosening the 4 Phillips screws. Two on the front side and 2 on the back side of the head.

3. Rotating Gobo-wheel: Remove the gobo out of the centric spring. Afterwards the gobo can be changed outside.

4. The Gobo-clamp with the magnet must be **always** opposite to the "open" position. If an exchange is necessary please replace the Gobo itself inside the mounting plate. **Never use two mounting plates with magnets at the same time!**

5. Fixed Gobo-wheel: Please remove the gobo directly out of the Gobo-spring.

6. Change the desired gobo and fix it again under the spring.

7. Close the **YPOC 250 PRO** in reverse order.
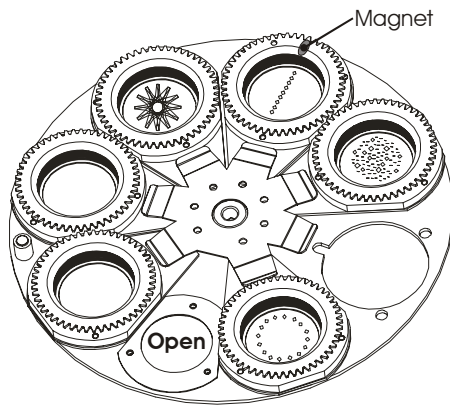
Wheel with rotating Gobos　　　　　　　Wheel with non rotating/fixed Gobos

Attention:

If you use glass gobos, the <u>non</u>-vaporized side must be fitted towards the <u>lamp</u> direction.

7　Maintenance and Cleaning the YPOC 250 PRO

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not built 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 reliable throughout its life.

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

The inside optical system should be maintained only by authorized persons. Please contact your local dealer.

7.1　Safety Regulations

- **Pull out the main plug!**
- Wait min. 20 minutes after the last operation to cool down the fixture.
- Before you put the **YPOC 250 PRO** into operation close the casing, otherwise your retina can be hurt!

7.2　Circumference and Interval (rule-of-thumb)

The contamination of the fixture depends on the environment details. Therefore no general guidelines can be given. From this it follows that the intervals are only suggestions from our practice experience.

Position	Interval	In this way
Outside optic	weekly	soft cloth and glass cleaning fluid
Color filter	monthly	soft cloth and glass cleaning fluid
Gobos	yearly	vacuum cleaner, airbrush, etc.
Glass gobos	monthly	soft cloth and glass cleaning fluid
Prism	monthly	soft cloth and glass cleaning fluid
Dimmer/Shutter/Iris	yearly	vacuum cleaner, airbrush, etc.
Inside lens	monthly	soft cloth **no** glass cleaning fluid
Fan and air channel	monthly	vacuum cleaner, airbrush, etc.
Reflector	**never**	
Lamp	**never**	
Moveable parts	yearly	suitable fatty oil

Attention:

1. **Never** let optical parts come into contact with oil or fat.
2. Before running the fixture wait until all parts are dried up.
3. **Never** clean the aspheric lens with water or other cleaners. Change the lens if it looks milky (about 1 - 2 years). For that please contact your local dealer.

7.3 Cleaning the Optical System

1. **Pull out the main plug!**
2. Wait min. 20 minutes after the last operation to cool down the fixture.
3. Open the upper shell of the head casing by loosening the 4 Phillips screws. Two on the front side and two on the back side of the head.
4. Do the work as explained in the list above.
5. Before you put the **YPOC 250 PRO** into operation close the casing, otherwise your retina can be hurt!
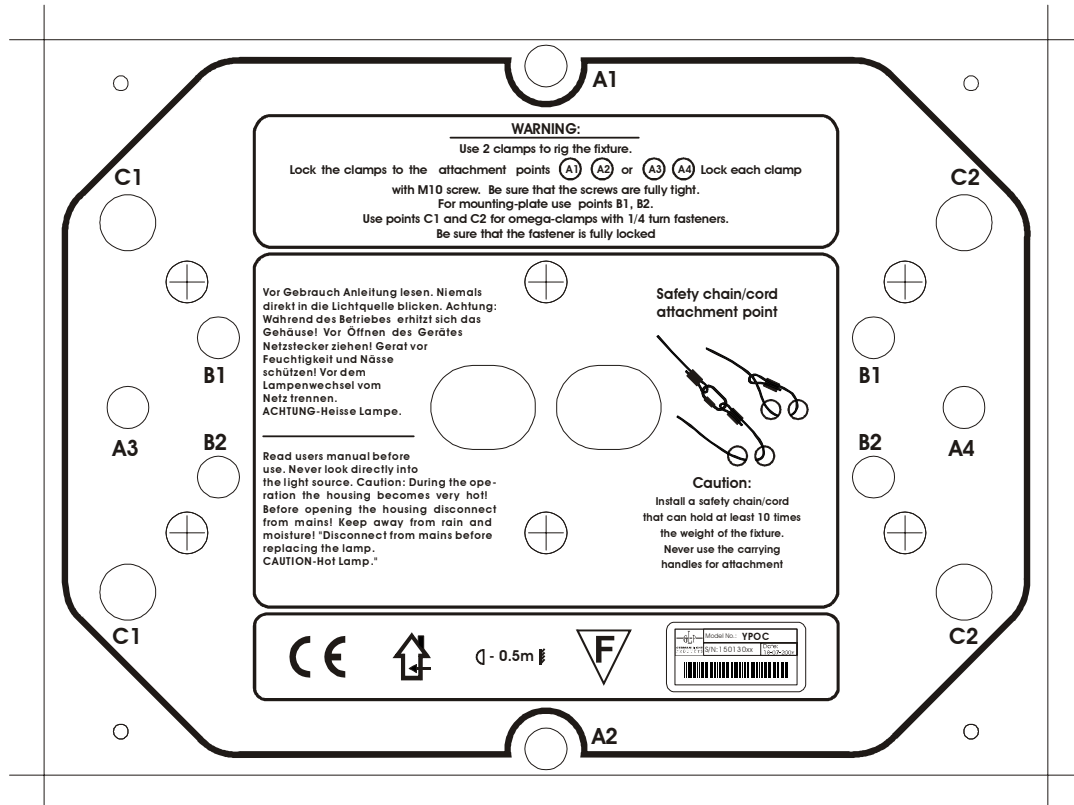
8   Technical Specification

Power supply	
Power consumption	500 Watt, 2.2A (blind current compensated)
Model	AC 230V / 50 Hz~
Fuse protection	T 3.15A, 250V, 5x20 mm (fine-wire fuse)
Lamp	
Types	- MSD 250/2 Philips - CSD 250/2/SE GE - HSD 250/78 Osram, GY-9,5 socket
Live time	2000h Philips, 2000h GE, 3000h Osram
Color temperature	8500k Philips, 8500k GE, 7800k Osram
Luminous flux	18.000lm Philips, 18.000lm GE, 17.000 Osram
Optical system	
Parabolic reflector	
Doubles condenser lens	
15° standard objective (optional 12° or 18°)	
Lens anti-reflex	
Color	
11 dichroic filter plus white, 12 half-colors	
Gobos	
Gobo-wheel 1: 7 exchangeable rotating gobos plus "open", 4 glass Gobos	
Gobo-wheel 2: 9 fixed exchangeable standard gobos plus "open"	
Gobo outside diameter 27 mm, image size 23 mm	
All gobos as steel or glass Gobos exchangeable, 9 spare Gobos	
Gobo thickness: glass = 1.1 mm, steel = 0.15 mm	
Shutter / Strobe / Dimmer	
Strobe- effect with variable speed 1 - 10 flashes per second	
Continuously mechanical dimmer 0 - 100%	
Prism	
Rotating 3-face prism, rotating and variable in speed	
Focus	
Motor driven focus from 2 m to infinite	
Additional Effects	
Laser: 4.5 mW laser diode controllable via DMX	
Drive	
Standard USITT DMX-512, 3 pole XLR; [+] = Pin 3 [-] = Pin 2 [Ground] = Pin 1. The DMX- addressing starts at the DMX- address [001].	
Pan / Tilt	
Pan- movement	**540° in max. 2,65 seconds, 16 bit resolution**
Tilt- movement	**280° in max. 1,68 seconds, 16 bit resolution**
Weights and measures	
Width of the base	**379 mm**
Length of the base	**392 mm (incl. handle)**
height (head vertical)	**485 mm (incl. rubber feet)**
Weight (net)	**22.5 kg**

9   Index

Annexes

A) Chassis Ground

WARNING:
Use 2 clamps to rig the fixture.
Lock the clamps to the attachment points (A1) (A2) or (A3) (A4) Lock each clamp
with M10 screw. Be sure that the screws are fully tight.
For mounting-plate use points B1, B2.
Use points C1 and C2 for omega-clamps with 1/4 turn fasteners.
Be sure that the fastener is fully locked

Vor Gebrauch Anleitung lesen. Niemals direkt in die Lichtquelle blicken. Achtung: Wahrend des Betriebes erhitzt sich das Gehäuse! Vor Öffnen des Gerätes Netzstecker ziehen! Gerat vor Feuchtigkeit und Nässe schützen! Vor dem Lampenwechsel vom Netz trennen. ACHTUNG-Heisse Lampe.

Read users manual before use. Never look directly into the light source. Caution: During the operation the housing becomes very hot! Before opening the housing disconnect from mains! Keep away from rain and moisture! "Disconnect from mains before replacing the lamp. CAUTION-Hot Lamp."

Safety chain/cord attachment point

Caution:
Install a safety chain/cord that can hold at least 10 times the weight of the fixture. Never use the carrying handles for attachment

B) Dimensions and Views
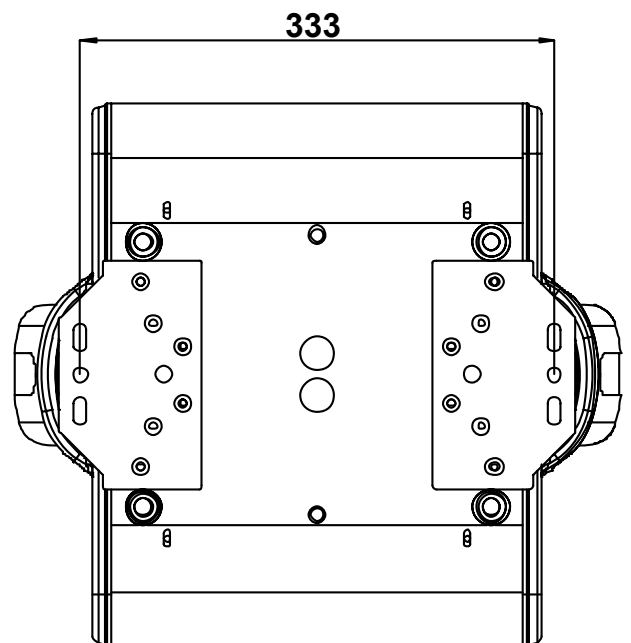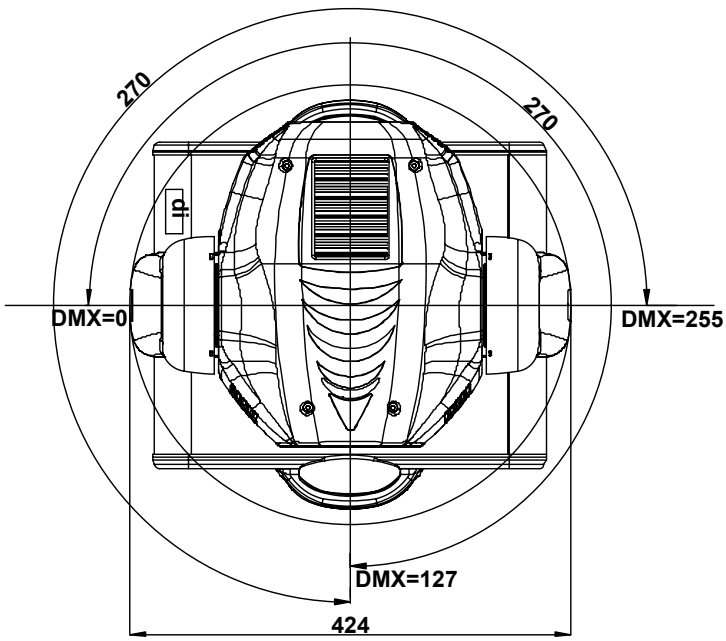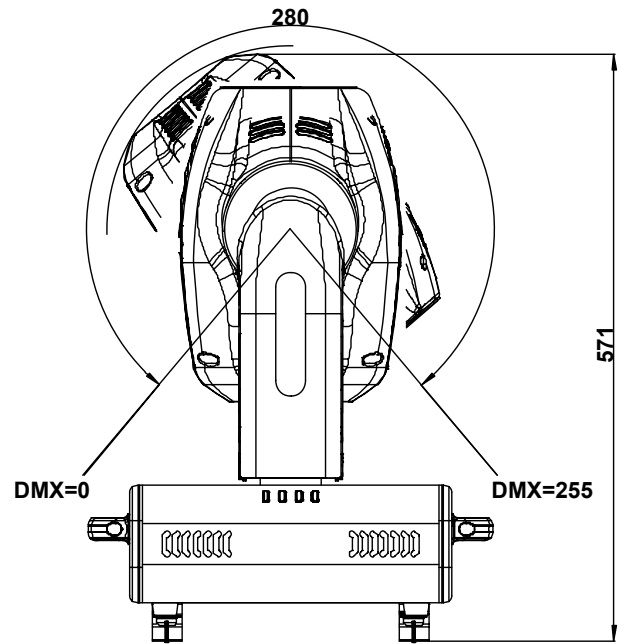
254
379
424

217
132

510
485

240
196
333

Mounting positions for clamps (M10x20 mm)

Wall mounting

PAN movement range (540°)

TILT movement range (280°)