



Patend Light

1200 HMI

Instruction Manual

From Version 1.2



GERMAN LIGHT
PRODUCTS

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Contents

| | | |
|----------|--|-----------|
| 1 | Introduction | 5 |
| 1.1 | Safety Rules | 7 |
| 2 | Installation | 8 |
| 2.1 | Mounting | 8 |
| 2.1.1 | <i>Clamps (Hooks)</i> | 8 |
| 2.1.2 | <i>Mountingplate (optional)</i> | 8 |
| 2.2 | Secure the Patend Light 1200 | 8 |
| 2.3 | Connectors | 9 |
| 2.3.1 | <i>AC Connectors</i> | 9 |
| 2.3.2 | <i>DMX</i> | 9 |
| 2.4 | Fuses..... | 9 |
| 3 | The Menu Field | 10 |
| 3.1 | Adjust the DMX-Address..... | 10 |
| 3.2 | Read out the Running Time of Lamp and Unit..... | 11 |
| 3.2.1 | <i>Lamp Time 1</i> | 11 |
| 3.2.2 | <i>Lamp Time 2</i> | 11 |
| 3.2.3 | <i>Life Time</i> | 11 |
| 3.3 | The CODE Level..... | 11 |
| 3.4 | The Test Level | 12 |
| 3.4.1 | <i>Selftest Procedure</i> | 12 |
| 3.5 | Temperature Control 1..... | 12 |
| 4 | Channel selection (Overview table)..... | 13 |
| 5 | Change the Lamp | 16 |
| 5.1 | Safety Rules | 16 |
| 5.2 | How to change the lamp | 17 |

| | | |
|----------|---|-----------|
| 6 | Change the Gobos | 18 |
| 6.1 | Safety Rules | 18 |
| 6.2 | How to change the Gobos | 18 |
| 7 | Maintenance the PATEND-LIGHT 1200..... | 20 |
| 7.1 | Mirror and Optical System | 20 |
| | 7.1.1 <i>Cleaning the inside Mirror and the outside Optical System.....</i> | <i>20</i> |
| | 7.1.2 <i>Cleaning the outside Optical System.....</i> | <i>21</i> |
| 7.2 | Ventilation System | 22 |
| 8 | Technical Data /Overview | 23 |

1 Introduction

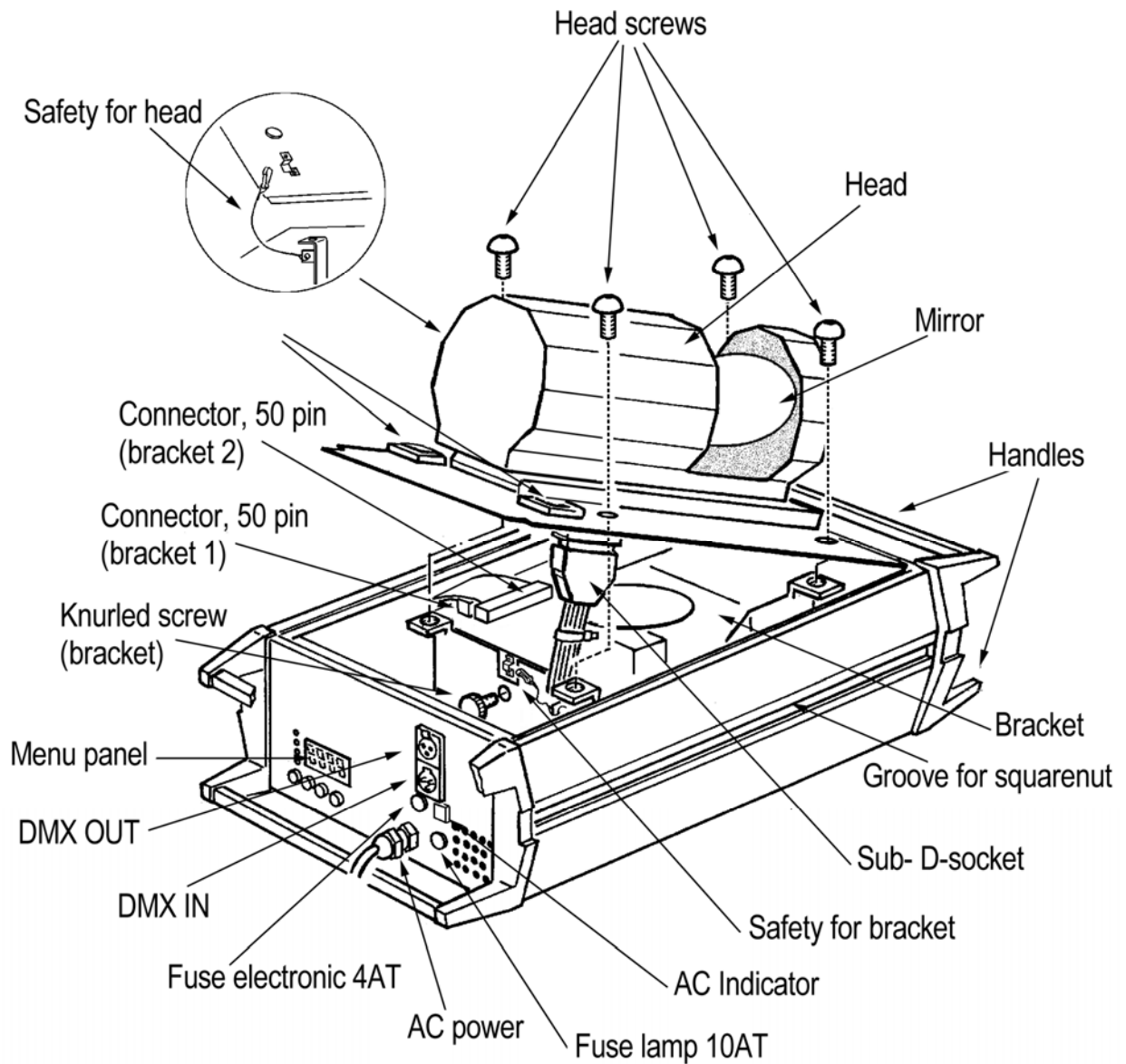


Illustration 1-1

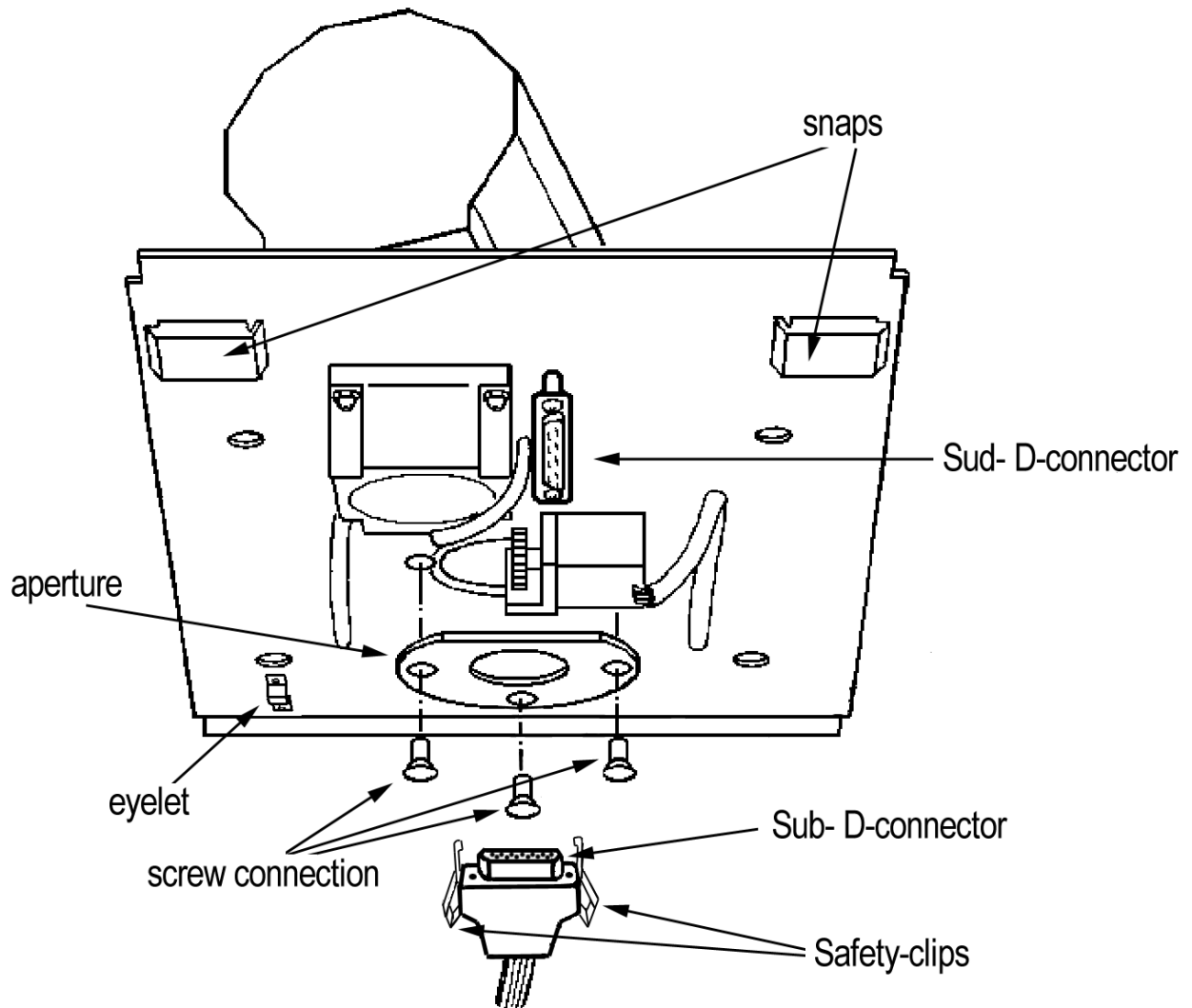


Illustration 1-2

1.1 Safety Rules

The **PATEND-LIGHT 1200** is a High-Tech Product. To guarantee a smooth operation, it is necessary to keep following rules.

1. Make sure that Head and Mirror of the **PATEND-LIGHT 1200**, can rotate without any mechanical problems and that all fan openings are clean and not blocked by anything.
2. Touching the head while moving can cause serious injuries
3. Unplug the **PATEND-LIGHT 1200** 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 **PATEND-LIGHT 1200**. Please do not touch the Bulb if you are not absolutely sure it is cold. **-Danger of BURNING-**
5. The PATEND-LIGHT 1200 is provided with a protective switch to switch off the lamp when opening it. By no means do not bridge these switch. **This can cause serious injuries of your retina.**
6. To allow a secure operation, follow also the Installation guide described in chapter 2. Operating the **PATEND-LIGHT 1200** without suited safety aids like Safety cables or clamps/hooks can increase the risk of an accident.
7. 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.

2 Installation

2.1 Mounting

To mount the **PATEND-LIGHT 1200** use the 8 threads M12 at the backside of the system or use the slidenuts at the side of the body.

2.1.1 Clamps (Hooks)

Mount clamps and/or hooks directly to the base plate.

Please make sure to use right sized clamps and hooks and fit them securely.

2.1.2 Mountingplate (optional)

For an easy mounting you can get this as an accessory. In this case a light mountingplate is premounted. After this the **PATEND-LIGHT 1200** can easily hang up.

The **PATEND-LIGHT 1200** is fully operational whether it stands, hangs or is mounted to the wall.

Using the **PATEND-LIGHT 1200** standing on the ground requires a rough but even surface. Make sure that the fan openings are not blocked by any circumstances.

2.2 Secure the Patend Light 1200

Use always safety wires to secure the **PATEND-LIGHT 1200**, connect them with the eye bolt in the slide nut and check the tight fit!

2.3 Connectors

2.3.1 AC Connectors

230 Volt, 50 Hz

2.3.2 DMX

DMX 512 Standard input/output

Please see printing on the case for the right Pin usage!

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

The DMX- Address starts at the **PATEND-LIGHT 1200** at the DMX- Address [001] (from software version P 3.0).

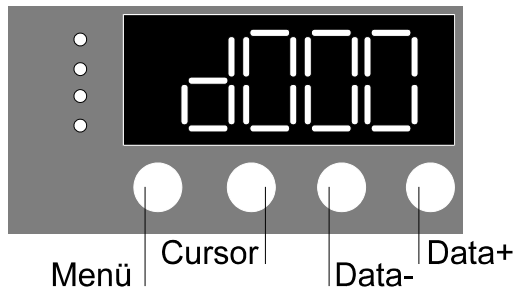
This can be changed to the DMX- Startaddress [000]. For this hold the *Menu* and *Data+* key while switching on the **PATEND-LIGHT 1200**.

2.4 Fuses

The **PATEND-LIGHT 1200** electronic system is protected by a 5x20 T4A fuse 250V. The lamp is protected by a 5x20 T10A fuse 250V. Please see the printing on the **PATEND-LIGHT 1200**, for more details look at the Illustration 1-1 in Chapter 1

Disconnect AC outlet before changing a fuse !!!

3 The Menu Field



3.1 Adjust the DMX-Address

Right after turning on the **PATEND-LIGHT 1200** you can see the current DMX-Address. Choose this as follows.

Select the DMX-Level and press the menu key.

This level is called on automatically after turning on the **PATEND-LIGHT 1200**.



Select the figure you want to adjust by pressing the Cursor key.

The selected figure begins to flash.



Adjust the figure by pressing the Data+ or Data- key.



Confirm the DMX-Address by pressing the Menu key once.



If there is no DMX- Signal, a (-) is flashing in the display.

The DMX-Address is stored also while switching off the PATEND-LIGHT 1200 !!!

3.2 Read out the Running Time of Lamp and Unit

Select the time level by pressing the Menu key twice.

A black rectangular box containing the word "hour" in a white, seven-segment LED font.

Select the requested time by pressing the Cursor key,

3.2.1 Lamp Time 1

The current lamp time is shown alternating with LA 1.

A black rectangular box containing the text "LA 1" in a white, seven-segment LED font.

This time can be cleared by pressing the Data + and Data – keys at the same time.

3.2.2 Lamp Time 2

The total lamp time is shown alternating with LA 2.

A black rectangular box containing the text "LA 2" in a white, seven-segment LED font.

3.2.3 Life Time

The life time is shown alternating with LIFE.

A black rectangular box containing the word "LIFE" in a white, seven-segment LED font.

3.3 The CODE Level

This level is accessed by authorised dealers only.

In this level you can adjust all functions. Also the change of Pan/Tilt high-byte and low-byte is possible.

3.4 The Test Level

The Test Level makes a function test or a selftest procedure possible.

3.4.1 Selftest Procedure



Select the requested test level by pressing the Cursor key.

Start the Selftest program by pressing the Data+ key. The lamp can be started by pressing the Data+ and Data- keys for 5 seconds at the same time.

You have the following sections:

| | |
|------|---------------------------|
| PR | Selftest of all funktions |
| PAN | Test Head movement |
| TILT | Test Mirror movement |
| PSA | Test Prisma |
| DI | Test Dimmer |
| Shut | Test Shutter |
| CLr | Test Colorwheel |
| GB1 | Test Gobowheel 1 |
| GB2 | Test Gobowheel 2 |
| IrIS | Test Iris |
| Gr1 | Test Gobo rotation 1 |
| FOCS | Test Focus |
| Gr2 | Test Gobo rotation 2 |

Forward with the Data+ key. – Backward with the Data- key.

3.5 Temperature Control 1

Deviates the temperature value too much from the system standard, the lamp will turn off automatically.

Reconnection can only be made by authorized dealers.

4 Channel selection (Overview table)

| Channel | Description | | DMX-Value | Hex-Value | Value % |
|----------------------------|-------------------------------------|----------------|-----------|-----------|----------|
| 1) Head | Headposition, High Byte (0°-360°) | | 0 - 255 | 0 - FF | 0 – 100% |
| 2) Head | Headposition, Low Byte (0°-1,41°) | | 0 - 255 | 0 - FF | 0 – 100% |
| 3) Mirror | Mirrorposition, High Byte (0°-360°) | | 0 - 255 | 0 - FF | 0 – 100% |
| 4) Mirror | Mirrorposition, Low Byte(0°-1,41°) | | 0 - 255 | 0 - FF | 0 – 100% |
| 5) Speed Head | Speed Head, 1/8min - 7/sec | | 0 - 255 | 0 - FF | 0 – 100% |
| 6) Speed Mirror | Speed Mirror, 1/4min - 3/sec | | 0 - 255 | 0 - FF | 0 – 100% |
| 7) Special Function | Head | Mirror | | | |
| | Relative Movement | | 0 | 0 | 0% |
| | Pos < 360° | Pos < 360° | 1 - 19 | 1 - 13 | 1 – 7% |
| | Pos > 360° | Pos > 360° | 20 - 29 | 14 - 1D | 8 – 11% |
| | Pos < 360° | Pos > 360° | 30 - 39 | 1E - 27 | 12 – 15% |
| | Pos > 360° | Pos < 360° | 40 - 49 | 28 - 31 | 16 – 19% |
| | Rotation left | Pos < 360° | 50 - 59 | 31 - 3B | 20 – 23% |
| | Rotation left | Pos > 360° | 60 - 69 | 3C - 45 | 24 – 27% |
| | Rotation right | Pos < 360° | 70 - 79 | 46 - 4F | 28 – 30% |
| | Rotation right | Pos > 360° | 80 - 89 | 50 - 59 | 31 – 35% |
| | Pos < 360° | Rotation left | 90 - 99 | 5A - 63 | 36 – 38% |
| | Pos > 360° | Rotation left | 100 - 109 | 64 - 6D | 39 – 42% |
| | Pos < 360° | Rotation right | 110 - 119 | 6E - 77 | 43 – 46% |
| | Pos > 360° | Rotation right | 120 - 129 | 78 - 81 | 47 – 50% |
| | Rotation left | Rotation left | 130 - 139 | 82 - 8B | 51 – 54% |
| | Rotation right | Rotation right | 140 - 149 | 8C - 95 | 55 – 58% |
| | Rotation left | Rotation right | 150 - 159 | 96 - 9F | 59 – 62% |
| | Rotation right | Rotation left | 160 - 254 | A0 - FE | 63 – 98% |
| | Reset without Shutter | | 254 | FE | 99% |
| | Reset for all Functions | | 255 | FF | 100% |
| 8) Color | color 1 (white) | | 0 - 4 | 0 - 4 | 1% |
| | bi (white – green) | | 5 - 9 | 5 - 9 | 2 – 3% |
| | color 2 (green) | | 10 - 14 | A - E | 4 – 5% |
| | bi (green – red) | | 15 - 19 | F - 13 | 6 – 7% |
| | color 3 (red) | | 20 - 24 | 14 - 18 | 8 – 9% |
| | bi (red – dark blue) | | 25 - 29 | 19 - 1D | 10 – 11% |
| | color 4 (dark blue) | | 30 - 34 | 1E - 22 | 12 – 13% |
| | bi (dark blue – yellow) | | 35 - 39 | 23 - 27 | 14 – 15% |
| | color 5 (yellow) | | 40 - 44 | 28 - 2C | 16 – 17% |
| | bi (yellow – pink) | | 45 - 49 | 2D - 31 | 18% |
| 8) Color | color 6 (pink) | | 50 - 54 | 32 - 36 | 19 – 20% |

| Channel | Description | DMX-Value | Hex-Value | Value % |
|---------------------|----------------------------------|-----------|-----------|----------|
| | bi (pink – turquoise) | 55 - 59 | 37 - 3B | 21 – 22% |
| | color 7 (turquoise) | 60 - 64 | 3E - 40 | 23 – 24% |
| | bi (turquoise – orange) | 65 - 69 | 41 - 45 | 25 – 26% |
| | color 8 (orange) | 70 - 74 | 46 - 4A | 27 – 28% |
| | bi (orange – cyan) | 75 - 79 | 4B - 4F | 29 – 30% |
| | color 9 (cyan) | 80 - 84 | 50 - 54 | 31 – 32% |
| | bi (cyan – magenta) | 85 - 89 | 55 - 59 | 33 – 34% |
| | color 10 (magenta) | 90 - 94 | 5A - 5E | 35 – 36% |
| | bi (magenta – white) | 95 - 99 | 5F - 63 | 37 – 39% |
| | rotation cw slow – fast | 128 - 191 | 80 - BF | 50 – 74% |
| | stop | 192 | C0 | 75% |
| | rotation ccw slow – fast | 193 - 255 | C1 - FF | 76-100% |
| 9) Gobow. 1 | Gobo 1 (open) | 0 - 9 | 0 - 9 | 0 – 3% |
| | Gobo 2 (rotation + posi) | 10 - 19 | A - 13 | 4 – 7% |
| | Gobo 3 (rotation + posi) | 20 - 29 | 14 - 1D | 8 – 11% |
| | Gobo 4 (fixed) | 30 - 39 | 1E - 27 | 12 – 15% |
| | Gobo 5 (rotation + posi) | 40 - 49 | 28 - 31 | 16 – 19% |
| | Gobo 6 (rotation + posi) | 50 - 127 | 32 - 7F | 20 – 50% |
| | rotation cw fast – slow | 128 - 191 | 80 - BF | 51 – 74% |
| | stop | 192 | C0 | 75% |
| | rotation ccw slow – fast | 193 - 255 | C1 - FF | 76-100% |
| 10) Schutter | shutter open | 0 - 9 | 0 - 9 | 0 – 3% |
| | shutter close 1 | 10 - 19 | A - 13 | 4 – 7% |
| | shutter close 2 | 20 - 29 | 14 - 1D | 8 – 11% |
| | shutter slow – fast | 30 - 99 | 1E - 63 | 12 – 38% |
| | shutter close 1 | 100 - 250 | 64 - FA | 39 – 98% |
| | shutter open | 251 - 255 | FB - FF | 99-100% |
| 11) Gobo 1 | stop | 0 - 4 | 0 - 4 | 0 – 1% |
| Rotation 1 | rotation cw slow – fast | 5 - 24 | 5 - 18 | 2 – 9% |
| | stop | 25 - 29 | 19 - 1D | 10 – 11% |
| | rotation ccw slow – fast | 30 - 49 | 1E - 31 | 12 – 19% |
| | stop | 50 - 54 | 32 - 36 | 20 – 21% |
| | gobo position | 55 - 255 | 37 - FF | 22-100% |
| 12) Iris | Iris 100% - 4% open | 0 - 255 | 0 - FF | 0 – 100% |
| 13) Fokus | min -. max | 0 - 255 | 0 - A | 0 – 100% |
| 14) Gobow. 2 | Gobo 1 (open) | 0 - 9 | 0 - 9 | 0 – 3% |
| | Gobo 2 (rotation) | 10 - 19 | A - 13 | 4 – 7% |
| | Gobo 3 (rotation) | 20 - 29 | 14 - 1D | 8 – 11% |
| | Gobo 4 (color correction filter) | 30 - 39 | 1E - 27 | 12 – 15% |
| | Gobo 5 (rotation) | 40 - 44 | 28 - 7B | 16 – 17% |
| | Gobo 6 (rotation) | 45 - 123 | 2D - 7B | 18 – 49% |
| | rotation cw slow . fast | 124 - 191 | 80 - BF | 50 – 74% |

| Channel | Description | DMX-Value | Hex-Value | Value % |
|--|------------------------------|-----------|------------|------------|
| | stop | 192 | C0 | 75% |
| | rotation ccw slow – fast | 193 – 255 | C1 - FF | 76 – 100% |
| 15) Gobo 2 | stop | 0 – 15 | 0 - F | 0 – 5% |
| Rotation | rotation cw slow – fast | 16 – 143 | 10 - 8F | 6 – 55% |
| | stop | 144 | 90 | 56% |
| | rotation ccw slow – fast | 145 – 255 | 91 - FF | 57 – 100% |
| 16) Prism | open | 0 – 9 | 0 – 9 | 0 – 3% |
| | prism 1 | 10 – 19 | A – 13 | 4 – 7% |
| | rot. cw prism 1 slow – fast | 20 – 69 | 14 – 45 | 8 – 26% |
| | stop | 70 | 46 | 27% |
| | rot. ccw prism 1 slow – fast | 71 – 119 | 47 – 77 | 28 – 46% |
| | stop | 120 | 78 | 47% |
| | Effect (frost filter) | 121 - 129 | 79 – 81 | 48 – 50% |
| | prism 2 | 130 – 139 | 82 – 8B | 51 – 54% |
| | rot. cw prism 2 slow – fast | 140 – 189 | 8C – BD | 55 – 73% |
| | stop | 190 | BE | 74% |
| | rot. ccw prism 2 slow – fast | 191 – 239 | BF – EF | 75 – 93% |
| | stop | 240 – 255 | F0 – FF | 94 – 100% |
| 17) Dimmer | close (0%) | 0 – 9 | 0 – 9 | 0 – 3% |
| | close – open (0 – 100%) | 10 – 249 | A – F9 | 4 – 97% |
| | open (100%) | 250 – 255 | FA – FF | 98 – 100% |
| Lamp on | Shutter (min 2 sec) | 240 – 245 | F0 – F5 | 94 – 96% |
| | dimmer | 250 – 255 | FA – FF | 98 – 100% |
| Lamp on <small>(from software-version 2.2, this is also shown in the display)</small> | Shutter (min 2 sec) | 240 – 255 | F0 – FF | 94 – 100% |
| | dimmer | 250 – 255 | FA – FF | 98 – 100% |
| Lamp off | shutter (min 2sec) | 246 – 250 | F6 – FA | 97 – 98% |
| | dimmer | 0 – 9 | 0 – 9 | 0 – 3% |
| | iris (max 5sec) | x- 255- 0 | x - FF - 0 | x- 100 -0% |
| Lamp off <small>(from software-version 2.2, this is also shown in the display)</small> | shutter (min 2sec) | 230 – 250 | E6 – FA | 90 – 98% |
| | dimmer | 0 – 9 | 0 – 9 | 0 – 3% |
| | iris (max 5sec) | x- 255- 0 | x - FF - 0 | x- 100 -0% |

Relative Movement:

If DMX- Channel Nr.7 (Special) is on DMX- [000] you can control the **PATEND-LIGHT 1200** in **Relative Movement**. Therefore the Speed channels No. 5/6 must be also on DMX- [000] If you have a DMX- Value on one of these channels it is automatically on Absolute Movement. While programming circles or other movements please use the Absolute Movement.

5 Change the Lamp

For a hassle free change of the Light bulb, it is absolutely necessary to follow all descriptions in this chapter step by step.

5.1 Safety Rules

- Unplug AC power connection
- Allow to cool (min. 30 minutes)
- Don't touch lamp with bare fingers.
- Install the lamp with the filler to the right direction. (see Illustration 5-1)
- Distance between lamp and lens holder must be min. 5mm.
- Close the **PATEND-LIGHT 1200** before you connect the AC power!

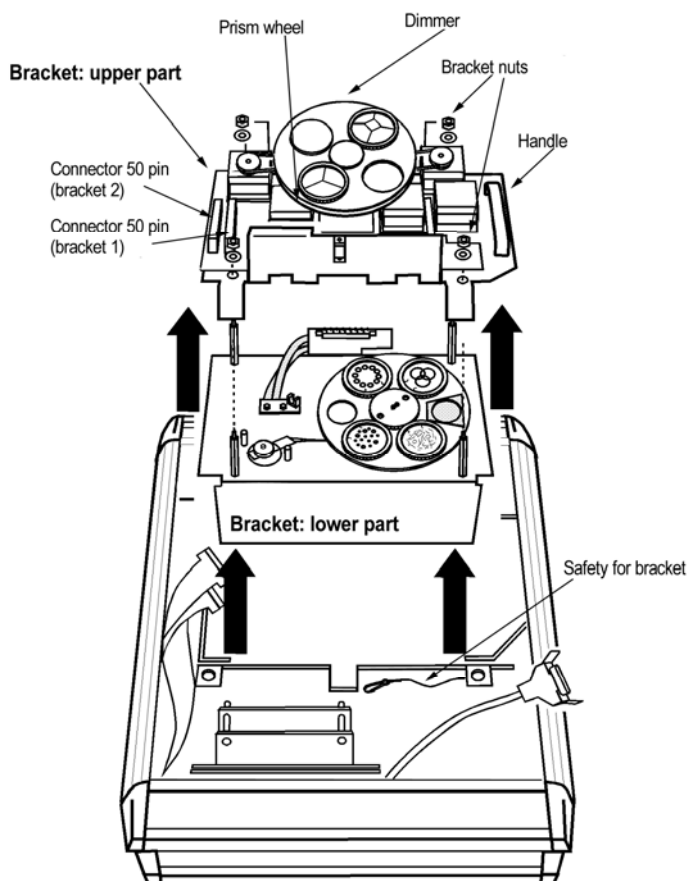


Illustration 5-1

5.2 How to change the lamp

Please look also Illustration 1-1 and 5-1/2.

1. Unscrew screws on the head with 8mm wrench.
2. Press the two safety levers at the same time and lift carefully the head plate.
3. Remove Sub-D socket by pressing the safety clips. Hang out the safety loop and lift the head plate cautiously.
4. Remove the multiple pin strip 1 and 2.
5. Open the knurled screw of the Optical Slide.
6. Hang out the safety of the Optical Slide in.
7. Take out the Optical Slide in carefully.
8. Unscrew the M4 screw of the optical plate.
9. Open the upper part of the optical device.
10. Unscrew the HMI lamp nuts and change the lamp.

The lamp filler must be placed like in the illustration !!!

11. Close the **PATEND-LIGHT 1200** in reverse order.

Attention: Make sure that the optical slide in fits in both grooves !!!

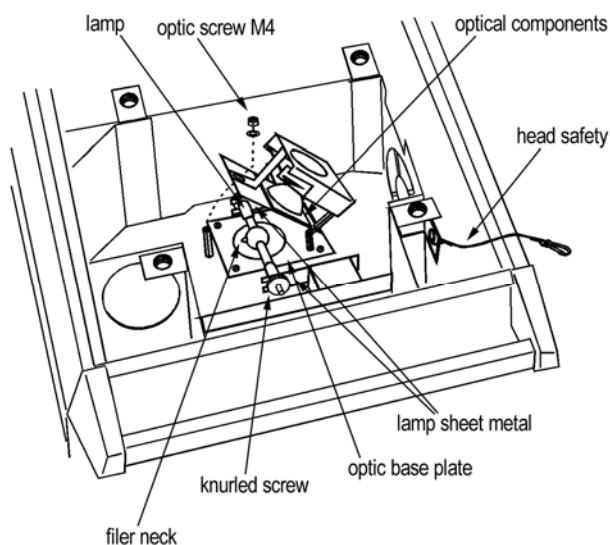


Illustration 5-2

6 Change the Gobos

The PATEND-LIGHT 1200 is fitted with standard Gobos (37,5 mm, picturesize 27,0 mm). To change one of these it is necessary to open the **PATEND-LIGHT 1200** and to remove the optical system.

6.1 Safety Rules

- Unplug AC power connection
- Allow to cool (over 30 minutes)
- Don't touch lamp with bare fingers.
- Close the **PATEND-LIGHT 1200** before you connect the AC power!

6.2 How to change the Gobos

Please look also Illustration 1-1 and 6-1.

1. Unscrew screws on the head with 8mm wrench.
2. Press the two safety levers at the same time and lift carefully the head plate.
3. Remove Sub-D socket by pressing the safety clips. Hang out the safety loop and lift the head plate cautiously.
4. Remove the multiple pin strip 1 and 2.
5. Open the knurled screw of the Optical Screw.
6. Hang out the safety of the Optical Slide in.
7. Take out the Optical Slide in carefully.
8. Unscrew the 4 screws of the Optical Slide in.
9. Put down the upper part of the Optical Slide in head firts.
10. Remove the little claps which holds the Gobos with a little screwdriver.
11. Change the Gobos and mount the claps aback to its position. Please make sure, that the Gobo fits correct.
12. Close the **PATEND-LIGHT 1200** in reverse order.

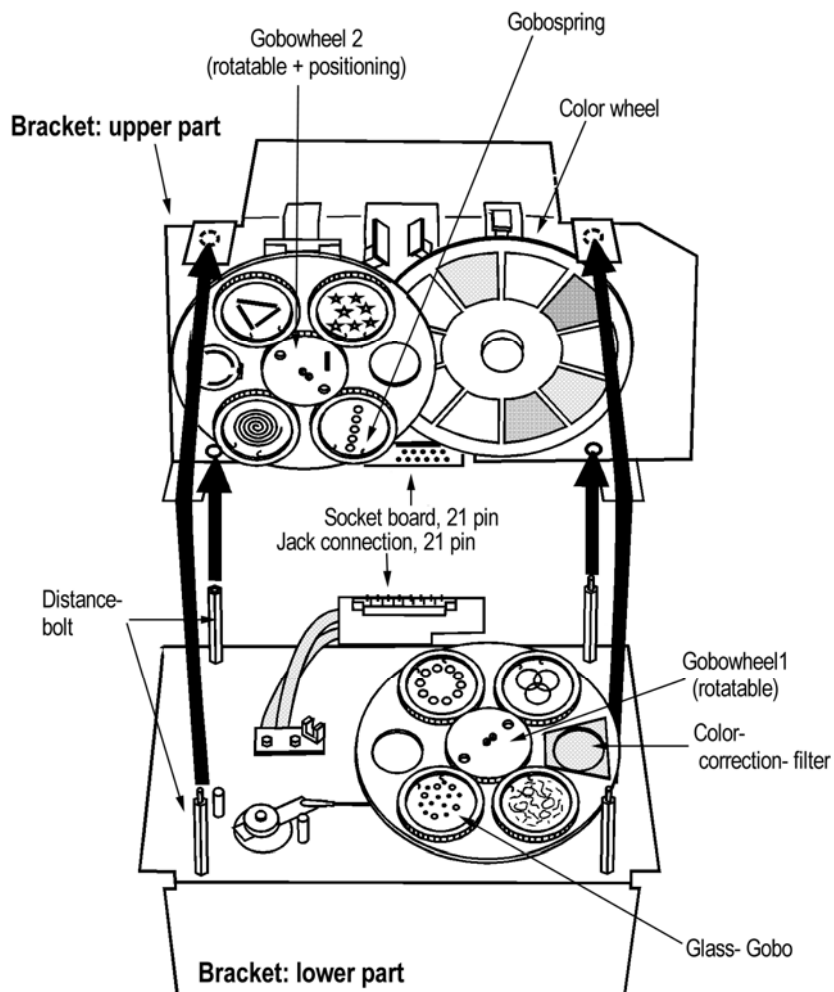


Illustration 6-1

Attention: Make sure that the optical slide in fits in both grooves !!!

If you use Glass-Gobos make sure that the mirror side looks towards the lamp side.

7 Maintenance the PATEND-LIGHT 1200

The cleaning of the inner optical System, color filters, color correction filter and lenses should be done by qualified person only! Contact your local **GLP** Dealer for details.

Use no strong detergents, acid etc. for cleaning the case.

7.1 Mirror and Optical System

Clean the **PATEND-LIGHT 1200** optical system with a moistened cloth and a little cleaner.

7.1.1 Cleaning the inside Mirror and the outside Optical System

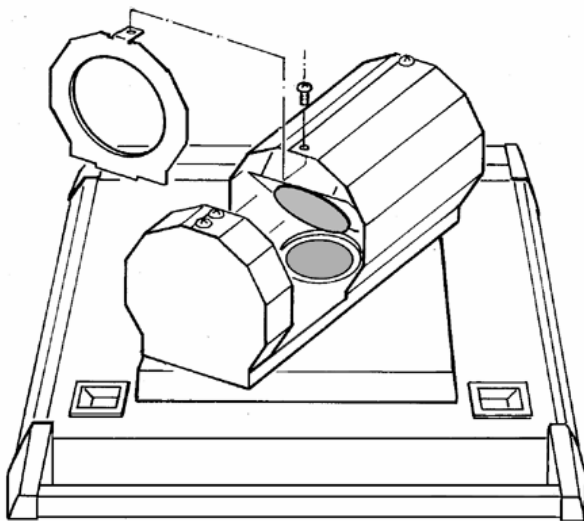


Illustration 7-1

Open the screws

Remove the Mirror Blind

7.1.2 Cleaning the outside Optical System

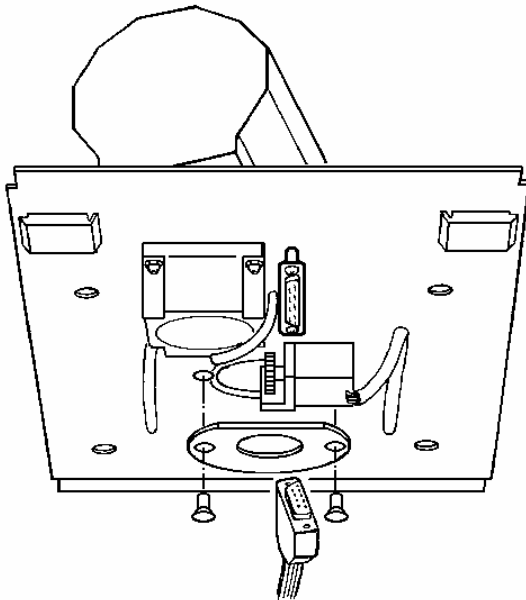


Illustration 7-2

1. Unscrew screws on the head with 8mm wrench.
2. Press the two safety levers at the same time and lift carefully the head plate.
3. Remove Sub-D socket by pressing the safety clips. Hang out the safety loop and lift the head plate cautiously.
4. Unscrew the two screws of the aperture.
5. Clean the lenses inside
6. Close the **PATEND-LIGHT 1200** in reverse order.

7.2 Ventilation System

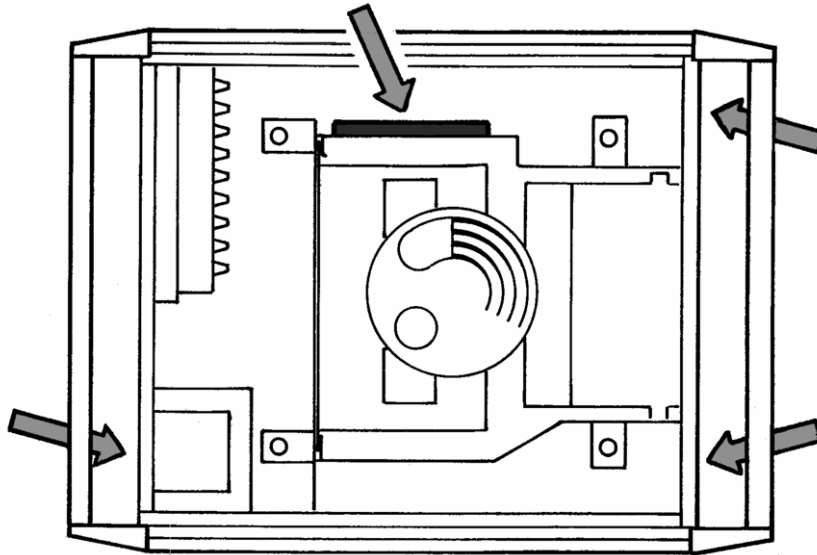


Illustration 7-3

It is necessary to clean the fan openings, air channels and fan gratings on a regular base (depending on the local environment).

8 Technical Data /Overview

- Supply Data 230V/10AT
- 1200 HMI W/S Lamp, bilateral based, with 750h Lamp Life
- Capacitor compensation
- DMX 512 Standard
- Angle of spread 16°
- weight 32 kg
- Dimensions: 566 x 434 x 395 mm

- **ROTO-Head**

Min. 1 round per 8 minutes

Max. 7 rounds per second

0,02 degrees resolution

14.00/25.000 Microsteps/360°

