

JUNIOR

SCAN 2

Instruction Manual



from software version 1.0
(instruction version 1.3)



email: service@glp.de
Internet: <http://www.GLP.de>

Table of contents

| | | |
|----------|---|-----------|
| 1 | Description of Device | 3 |
| 1.1 | Safety Instructions | 4 |
| 2 | Installation | 5 |
| 2.1 | Mounting | 5 |
| 2.2 | Secure the JUNIOR SCAN 2 | 5 |
| 2.3 | Connectors | 5 |
| 2.3.1 | AC Connectors | 5 |
| 2.3.2 | DMX | 5 |
| 2.4 | Fuse..... | 5 |
| 3 | The Menu Field / Functions | 6 |
| 3.1 | Adjust the DMX- Address..... | 6 |
| 3.2 | Special Functions..... | 6 |
| 3.2.1 | Reset Function | 6 |
| 3.2.2 | Sound Function | 6 |
| 3.2.3 | Lamp ON / OFF..... | 7 |
| 3.2.4 | Temperature Control | 7 |
| 3.2.5 | Invert PAN/Tilt | 7 |
| 4 | DMX Channel Selection (DMX Protocol) | 8 |
| 5 | Changing the lamp | 11 |
| 5.1 | Safety regulations | 11 |
| 5.2 | Realize the Lamp Change | 11 |
| 6 | Changing the Gobos | 12 |
| 6.1 | Safety Regulations..... | 12 |
| 6.2 | Realize the Gobo Change..... | 12 |
| 7 | Maintenance and Cleaning the JUNIOR SCAN 2 | 13 |
| 7.1 | Safety Regulations..... | 13 |
| 7.2 | Mirror and Optical System | 13 |
| 7.3 | Air Cooling System | 13 |
| 8 | Technical Specifications | 14 |

1 Description of Device

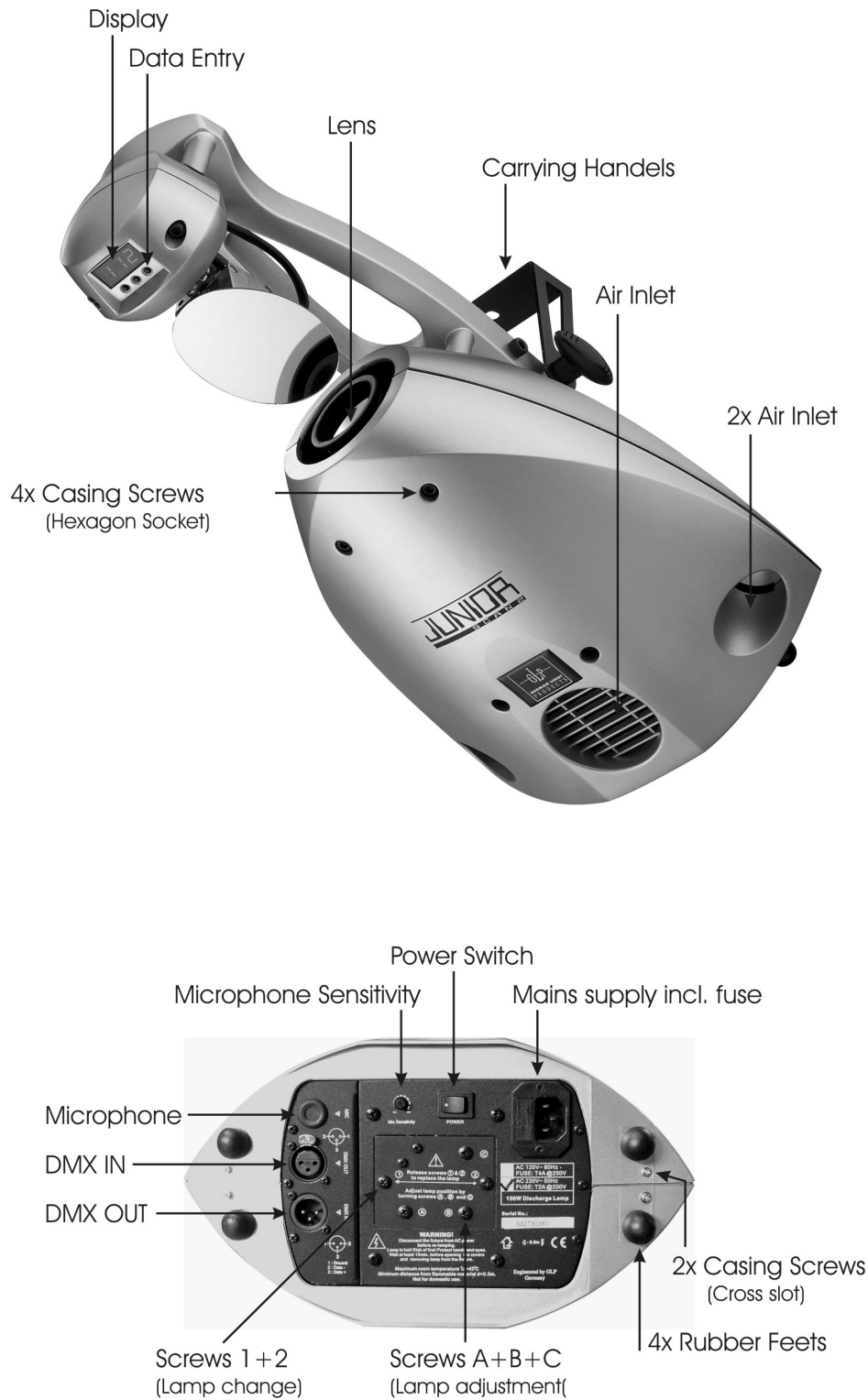


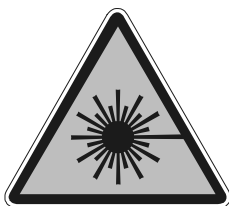
Illustration 1-1

1.1 Safety Instructions



The **JUNIOR SCAN 2** 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 that before putting into operation, the fan and the air inlets are clean and not blocked by anything. **JUNIOR SCAN 2**
2. **Attention:** Don't touch the device during the operation. This can cause injuries or damages.
3. **Unplug the JUNIOR SCAN 2 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 **JUNIOR SCAN 2**. 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 **JUNIOR SCAN 2** 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. Please 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.



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 Installation

2.1 Mounting

Mount clamps and/or hooks directly to the bow of the **JUNIOR SCAN 2**. Please make sure to use right sized clamps and hooks and fit them securely. Keep a safety distance of 0.5 m towards any easy inflammable materials (decoration etc.).



**Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217 !
The installation should be done by qualified staff only.**

2.2 Secure the JUNIOR SCAN 2

Install a safety wire through the handle that can hold at least 10 times the weight of the fixture.

2.3 Connectors

2.3.1 AC Connectors

230 Volt, 50 Hz (EU model) or 120 Volt, 60 Hz (US model)

Please see printing on the case for the right power supply!

2.3.2 DMX

DMX 512 Standard input/output.

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

The DMX- Address starts at [001].

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

2.4 Fuse

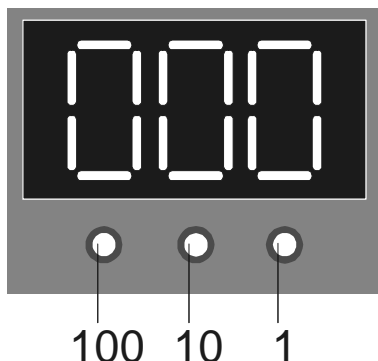
The **JUNIOR SCAN 2** electronic system is protected by a 5x20mm T2A fuse 250V (EU model), respectively a 5x20mm T4A fuse 120 V (US model).

- **Please see the printing on the JUNIOR SCAN 2 for more details!**
- **Disconnect AC outlet before changing a fuse!**

3 The Menu Field / Functions

You can adjust the DMX address of the **JUNIOR SCAN 2** directly at the menu field.

3.1 Adjust the DMX- Address



Right after turning on the **JUNIOR SCAN 2** and the first reset, you see the current DMX- Address. Use the first? button for the "first digit", the second button for the "second digit" and the third button for the "third digit" of the DMX address.

The DMX-Address is stored also while switching off the **JUNIOR SCAN 2**.

3.2 Special Functions

3.2.1 Reset Function

The **JUNIOR SCAN 2** is performing a reset right after turning on the unit. During this operation the display shows „rst“. This function can also be started via the DMX signal. Select a DMX value between 250 and 255 for longer than 3 seconds in the Special Channel (No. 9).

3.2.2 Sound Function

This function allows you to run a stand alone audio program. For activating please use the following procedure:

Press and hold down the right display button (first digit) while switching on the **JUNIOR SCAN 2**. The display reads firstly the version number of the unit and afterwards 2 sec. "AUD" to indicate the audio function.

Now the **JUNIOR SCAN 2** is in Audio-Mode as well as in Master-Mode. That means further units can be connected to the first **JUNIOR SCAN 2** which run the audio program simultaneously. All further units must be set to Normal-Mode (switched off Audio-Mode).

To switch off this function again you have to run the above mentioned procedure once again. Press and hold down the right display button (first

digit) while switching on the **JUNIOR SCAN 2**. The display reads only "rST" (Reset).

3.2.3 *Lamp ON / OFF*

The lamp of the **JUNIOR SCAN 2** can be switched off via DMX signal. For this please bring DMX channel no. 9 (Special) to a value between 230 - 249 and DMX channel no. 5 (Shutter) to a value between 0 - 15. The lamp will start again if you set DMX channel no. 5 (Shutter) to a value between 254 - 255.

3.2.4 *Temperature Control*




















If the inside temperature of the unit exceeds an certain value (e.g. in case of blocked fans) the lamp of the **JUNIOR SCAN 2** will be automatically switched off. After solving the problem the lamp can be started once again.

3.2.5 *Invert PAN/Tilt*

This function allows you to invert the PAN/Tilt movement. Press and hold down the middle (left) display button while switching on the unit to invert the PAN (Tilt) movement. The display shows "r-P" for PAN inverse or "r-T" for Tilt inverse. To switch off this functions please run these procedures once again.

4 DMX Channel Selection (DMX Protocol)

| Channel | Function | DMX-value | Hex-value | Value in % |
|---------------------|----------------------|-----------|-----------|------------|
| 1) Pan | Pan- Position | 0 - 255 | 0 - FF | 0 – 100% |
| 2) Tilt | Tilt- Position | 0 - 255 | 0 - FF | 0 – 100% |
| 3) Color | white / open | 0 - 3 | 0 - 3 | 1% |
| | open / Dark Blue B01 | 4 - 7 | 4 - 7 | 2% |
| | Dark Blue B01 | 8 - 11 | 8 - B | 3% |
| | Half-Color 2 | 12 - 15 | C - F | 5% |
| | Dark Green G01 | 16 - 19 | 10 - 13 | 7% |
| | Half-Color 3 | 20 - 23 | 14 - 17 | 8% |
| | Light Yellow Y0200 | 24 - 27 | 18 - 1B | 10% |
| | Half-Color 4 | 28 - 31 | 1C - 1F | 11% |
| | Bright Blue B2879 | 32 - 35 | 20 - 23 | 13% |
| | Half-Color 5 | 36 - 39 | 24 - 27 | 15% |
| | Lavender V98349 | 40 - 43 | 28 - 2B | 16% |
| | Half-Color 6 | 44 - 47 | 2C - 2F | 18% |
| | Magenta M56339 | 48 - 51 | 30 - 33 | 19% |
| | Half-Color 7 | 52 - 55 | 34 - 37 | 21% |
| | Light Blue B6467 | 56 - 59 | 38 - 3B | 22% |
| | Half-Color 8 | 60 - 63 | 3C - 3F | 24% |
| Fire 00819 | 64 - 67 | 40 - 43 | 25% | |
| Half-Color 9 | 68 - 71 | 44 - 47 | 27% | |
| Turquoise C4700 | 72 - 75 | 48 - 4B | 29% | |
| Half-Color 10 | 76 - 79 | 4C - 4F | 30% | |
| Pink M6336 | 80 - 83 | 50 - 53 | 32% | |
| Half-Color 11 | 84 - 87 | 54 - 57 | 33% | |
| Canary Y89312 | 88 - 91 | 58 - 5B | 35% | |
| Half-Color 12 | 92 - 95 | 5C - 5F | 36% | |
| Golden Amber O5921 | 96 - 99 | 60 - 63 | 38% | |
| Half-Color 13 | 100 - 103 | 64 - 67 | 40% | |
| Red R9926 | 104 - 107 | 68 - 6B | 41% | |
| Half-Color 14 | 108 - 111 | 6C - 6F | 43% | |
| Italien Blue C45370 | 112 - 115 | 70 - 73 | 44% | |
| Half-Color 15 | 116 - 119 | 74 - 77 | 46% | |
| Green G28389 | 120 - 123 | 78 - 7B | 47% | |
| Half-Color 16 | 124 - 127 | 7C - 7F | 49% | |

| Channel | Function | DMX-value | Hex-value | Value in % |
|-------------------|---|-----------|-----------|------------|
| | Multicolor 1 | 128 - 131 | 80 - 83 | 50% |
| | Half-Color 17 | 132 - 135 | 84 - 87 | 52% |
| | Multicolor 2 | 136 - 139 | 8 - 8B | 53% |
| | Rotation, slow - fast | 140 - 253 | 8C - FD | 54 - 98% |
| | music color chaser (slow) | 254 | FE | 99% |
| | music color chaser (fast) | 255 | FF | 100% |
| 4) Gobos | open | 0 - 7 | 0 - 7 | 2% |
| | Gobo 1  (exchangeable) | 8 - 15 | 8 - F | 5% |
| | Gobo 2  (exchangeable) | 16 - 23 | 10 - 17 | 8% |
| | Gobo 3  | 24 - 31 | 18 - 1F | 11% |
| | Gobo 4  | 32 - 39 | 20 - 27 | 15% |
| | Gobo 5  | 40 - 47 | 28 - 2F | 18% |
| | Gobo 6  | 48 - 55 | 30 - 37 | 21% |
| | Gobo 7  | 56 - 63 | 38 - 3F | 24% |
| | Gobo 8  | 64 - 71 | 40 - 47 | 27% |
| | Gobo 9  | 72 - 79 | 48 - 4F | 30% |
| | Gobo 10  | 80 - 87 | 50 - 57 | 33% |
| | Gobo 11  | 88 - 95 | 58 - 5F | 36% |
| | Gobo 12  | 96 - 103 | 60 - 67 | 40% |
| | Gobo 13  | 104 - 111 | 68 - 6F | 42% |
| | Gobo 14  | 112 - 119 | 70 - 77 | 45% |
| | Gobo 15  | 120 - 127 | 78 - 7F | 48% |
| | Gobo 16  | 128 - 135 | 80 - 87 | 52% |
| | Gobo 17  | 136 - 143 | 88 - 8F | 55% |
| | Gobo 18  | 144 - 151 | 90 - 97 | 58% |
| | Gobo 19  | 152 - 159 | 98 - 9F | 60% |
| | music Gobo chaser (slow) | 254 | FE | 99% |
| | music Gobo chaser (fast) | 255 | FF | 100% |
| 5) Shutter | Shutter closed | 0 - 15 | 00 - 0F | 0 - 3% |
| | Random Shutter | 16 - 31 | 10 - 1F | 9% |
| | Audio Shutter | 32- 47 | 20 - 2F | 16% |
| | Shutter frequency, slow - fast | 48 - 239 | 30 - EF | 17 - 93% |

| Channel | Function | DMX-value | Hex-value | Value in % | | |
|---------------------|---|-------------|--------------|------------|--------|----------|
| | Shutter open | 240 - 255 | F0 - FF | 94 - 100% | | |
| | Lamp ON (ignition) | 254 - 255 | FD - FF | 100% | | |
| 6) Speed | Pan/Tilt, relative | 0 - 1 | 00 - 01 | 0 - 1% | | |
| | Pan/Tilt, slow - fast | 2 - 255 | 02 - FF | 2 - 100% | | |
| 13) Movement | 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 | | | 32..63 | 20..3F | 13..25% |
| | PAN / TILT | | | 64..95 | 40..5F | 26..37% |
| | PAN / TILT (inverse) | | | 96..127 | 60..7F | 38..50% |
| | Circle | | | 128..159 | 80..9F | 51..62% |
| | Circle (inverse) | | | 160..191 | A0..BF | 63..75% |
| | lying eight | | | 192..223 | C0..DF | 76..87% |
| | random movement | | | 224..255 | E0..FF | 88..100% |
| 8) Laser | Laser OFF | 0 - 15 | 00 - 0F | 0 - 3% | | |
| | Laser flashes, random | 16 - 31 | 10 - 1F | 9% | | |
| | Laser Audio controlled | 32 - 47 | 20 - 2F | 16% | | |
| | Laser blinking, slow - fast | 48 - 127 | 30 - 7F | 17 - 49% | | |
| | Laser blinking, slow - fast | 128 - 239 | 80 - EF | 50 - 93% | | |
| | Laser ON | 240 - 255 | F0 - FF | 94 - 100% | | |
| 9) Special | n.a. | 0 - 63 | 0 - 3F | 0 - 25% | | |
| | Color-Chaser, Color <-> C + 1, slow - fast | 64 - 79 | 40 - 4F | 26 - 31% | | |
| | Color-Chaser, Color <-> C + 2, slow - fast | 80 - 95 | 50 - 5F | 32% - 37% | | |
| | Pan/Tilt Audio controlled --> slow | 96 - 111 | 60 - 6F | 38 - 44% | | |
| | Pan/Tilt Audio controlled --> fast | 112 - 127 | 70 - 7F | 45- 49% | | |
| | Pan/Tilt random positions | 128 - 143 | 80 - 8F | 50 - 56% | | |
| | Lamp OFF after 3 sec. (only if Shutter is closed) | 230 - 249 | EF - F9 | 90 - 97% | | |
| | Reset after 3 sec. | 250 - 255 | FA - FF | 98 - 100% | | |

5 Changing the lamp

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

5.1 Safety regulations

- **Pull out the main plug!**
- Wait at least 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 **JUNIOR SCAN 2** into operation close the casing, otherwise your retina can be hurt!

5.2 Realize the Lamp Change

Please see also Illustration 1-1 on page 3.

1. Open the two Phillips screws on the bottom of the case.
2. Pull out the lamp holder sheet including the lamp securely.
3. Remove the old/broken lamp.
4. Put in the new lamp securely in reverse order. Use only the originally lamp type.
Do not touch the new lamp with bare fingers.
5. Apply the lamp holder sheet back again into the shaft.
6. Close the two Phillips screws afterwards.
7. Now the maximum light output can be adjusted with the three adjustment screws on the back side of the lamp holder sheet.

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

Pay attention on a firm fit of the lamp !!!

6 Changing the Gobos

You can change two Gobos of your own choice. Please pay attention on the following specifications and procedures.

Gobo diameter: 13,8mm

Gobo picture diameter: 12,5mm

Gobo thickness: ~0,2mm (glass)- or steel Gobos can be used.

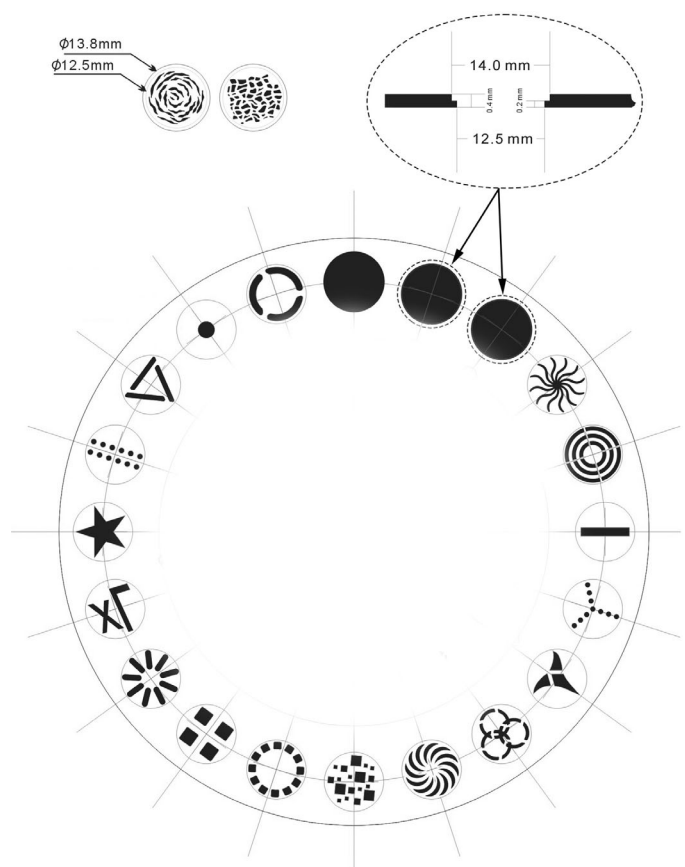
6.1 Safety Regulations

- **Pull out the main plug!**
- Wait at least 20 minutes after the last operation to cool down the fixture.

Before you put the **JUNIOR SCAN 2** into operation close the casing, otherwise your retina can be hurt!

6.2 Realize the Gobo Change

1. Open the **JUNIOR SCAN 2** as described before in chapter 5 on page 11.
2. Take out the Gobo by holding it with your fingers.
3. Insert the new Gobo and snap it into the clips. Pay attention on a save fit.
4. Close the **JUNIOR SCAN 2** again in reverse order.



7 Maintenance and Cleaning the JUNIOR SCAN 2

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 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!

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 at least 20 minutes after the last operation to cool down the fixture.
- Before you put the **JUNIOR SCAN 2** into operation close the casing, otherwise your retina can be hurt!

7.2 Mirror and Optical System

Clean the mirror and the optical system of the **JUNIOR SCAN 2** with water and some glass detergent.

To clean the inner side of the lens, it can be screwed out completely.

7.3 Air Cooling System

Clean the fans, air channels and grills regularly.

Attention: Do not cover the air inlets !!!

8 Technical Specifications

- Power Supply 230Volt: 5x20 2,0AT / 150V: 5x20 4,0AT
- Lamp: HSD 150/70, 3000h, 7000k or CDM/SA-T 150W, 6000h, 4200k
- DMX 512 Standard
- Pan 230° / Tilt 110°
- 15 colors + white
- 2x multi color effects
- 16 half colors
- 19 Gobos (2 exchangeable)
- High Speed Shutter
- Laser diode positioning by the mirror
- Stand-alone music controlled
- Weight 8,5 kg
- Measures: 540 x 310 x 220 mm

| Nr. | Color |
|-----|---------------------|
| 1 | Dark Blue B01 |
| 2 | Dark Green G01 |
| 3 | Light Yellow Y0200 |
| 4 | Bright Blue B2879 |
| 5 | Lavender V98349 |
| 6 | Magenta M56339 |
| 7 | Light Blue B6467 |
| 8 | Fire 00819 |
| 9 | Turquoise C4700 |
| 10 | Pink M6336 |
| 11 | Canary Y89312 |
| 12 | Golden Amber O5921 |
| 13 | Red R9926 |
| 14 | Italien Blue C45370 |
| 15 | Green G28389 |
| A | Bright Blue B2879 |
| B | Canary Y89312 |
| C | Magenta M56339 |
| D | Red R9926 |
| E | Green G28389 |
| F | Slate Blue B44367 |
| G | Orange O1823 |
| H | Pink M63336 |

