

# Instruction Manual

impression<sup>&</sup>  
X4



Covers software version: 1.18/18/12/10/n  
Instruction Manual Rev. 20211203-01



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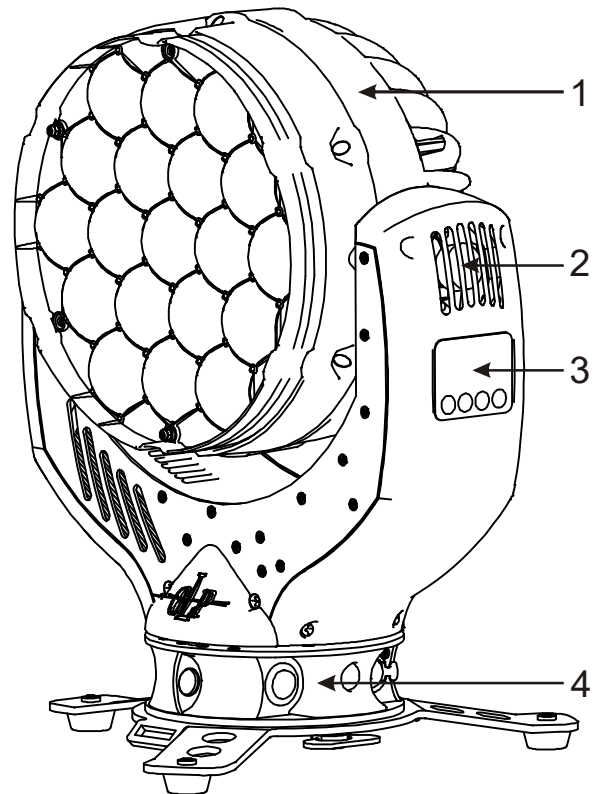
## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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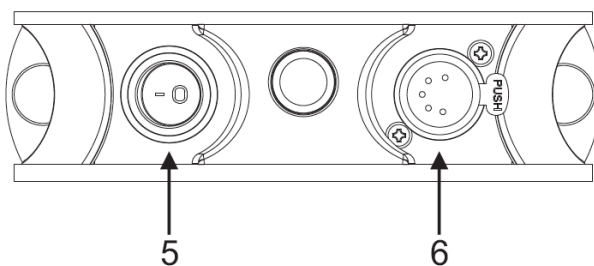
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## 1 Description of Device

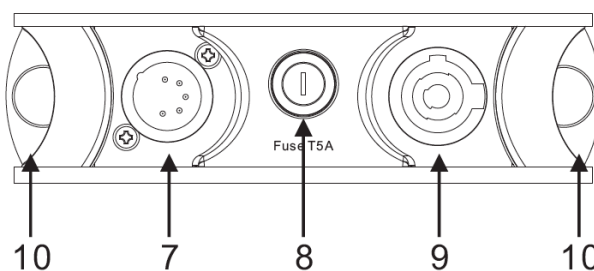
1. Moving head (actively and passively cooled)
2. Arm with various cooling vents
3. LCD-Display/Menu (data entry)
4. Base with various connectors and Camlock mounting system



Base side 1



Base side 2



5. Power On/Off
6. DMX- Output (5 pin)
7. DMX- Input (5 pin)
8. Micro-fuse 5x20mm, T5A
9. Mains supply (Powercon)
10. 2 x Safety eyes

## 1.1 Safety Instructions



The **IMPRESSION X4** is a High-Tech Product. To guarantee a smooth operation, it is necessary to respect the following rules. The manufacturer of this device will not take responsibility for damages through any disregard of the information provided in this manual. Warranty claims also will be voided in the case that the fixture housing is opened.

1. Before powering on the fixture, make sure that the fixtures fans and air inlets are clean and not blocked.
2. Ensure that the fixture head can rotate unhindered throughout its complete range of pan and tilt movement. A safety distance of at least 0.5 m must be maintained between the fixture and any easily inflammable material (e.g. decoration material).
3. **Attention!** Don't touch the fixture during the operation. This can cause injuries and/or damages.
4. **The fixture doesn't contain any user serviceable parts. Opening the fixture will void all warranties.**
5. It is necessary to wait at least 15 minutes after disconnecting the mains power before handling the fixture.. Pay attention to possible hot parts of the fixture.  
**-- Danger of BURNING --**
6. **Never look directly into the beam of light or into one of the LEDs.** Never use optical apertures to observe the beam of light. **LED Class 2M.** You'll risk serious injury of your eyes and in particular of your retina.



**Attention:** LED Class 2M can cause injuries of your eyes even without optical instruments in front of them or within a distance of less than 0.5m and short exposure time.

**Hence: Avoid direct radiation into your eyes!**

7. To ensure safe operation, follow also the Installation guide described in chapter 2. Operating the **IMPRESSION X4** without suitable safety aids like Safety cables or clamps/hooks can increase the risk of an accident and must be avoided.
8. Repair, maintenance, and installation work shall be done by qualified or GLP certified staff only. You need to pay attention to the common rules of technology that are not explicitly mentioned in this manual.
9. Use only original GLP spare parts. Any structural modification of the system will terminate all warranty claims.
10. Please keep this instruction manual for future reference.

## 2 Preparation and Installation

### 2.1 Safety information

The **IMPRESSION X4** fixtures from GLP is fitted with a number of plano-convex lenses in a highly efficient collimator cluster. This type of lens can act as a strong magnifying glass.

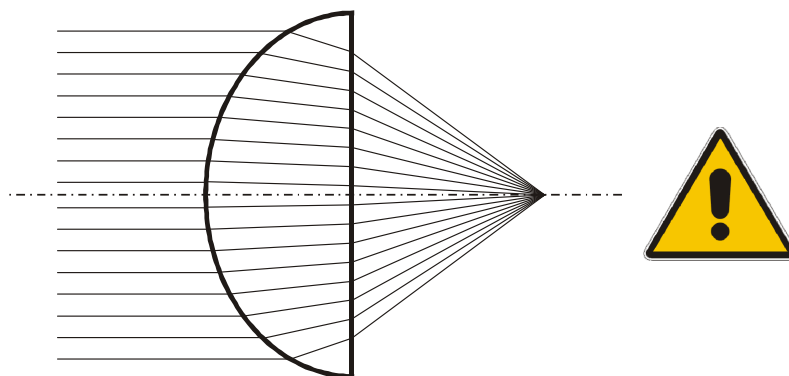
If the rays from a strong light source (such as the sun or another lighting fixture) are directed towards the front of any of these fixtures, then internal damage may occur. In a worst case scenario with a high power light source this can happen very quickly, damaging the fixture internally, potentially melting components or causing an internal fire within seconds.

In order to avoid these possible problems please adhere to the following requirements:

- Do not expose the front of a fixture to direct sunlight or any other strong light sources.
- For outdoor applications during daylight make sure that the front face of any fixture is either shielded or points away from the sun, even when fixtures are not in use.
- Do not modify the front glass or lenses of any fixture.

These requirements have to be followed regardless of whether a fixture is powered on or off as the magnifying effect is an optical effect and therefore independent from the (electrical) state of the fixture.

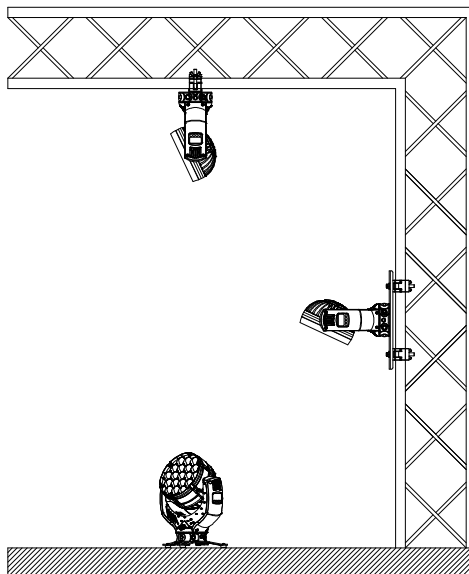
Especially when working with high powered **beam-lights**; extreme caution and observance of these safety instructions is mandatory.



Should you have any questions about the operation of your fixture then please contact your local GLP office, or their authorized distributor, a list of which can be found at <http://www.glp.de>.

## 2.2 Mounting

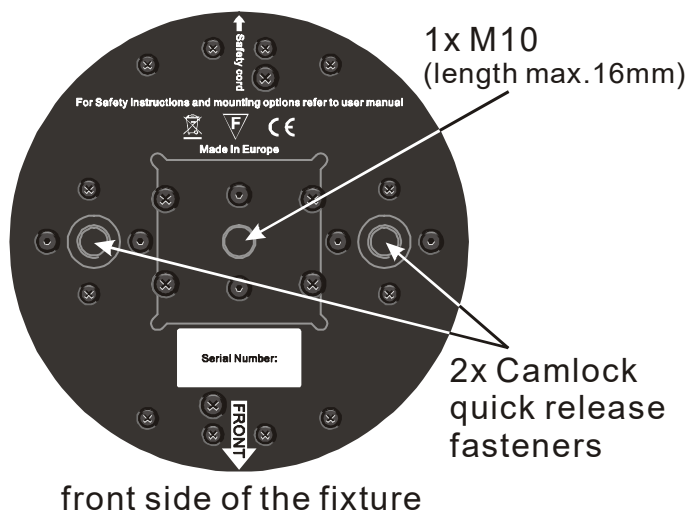
The **IMPRESSION X4** is fully operational whether it hangs or is mounted to the wall. It can also be operated while standing on the floor. Keep a safety distance of min. 0.5 m towards any easily inflammable materials (decoration etc.).



Pay attention to the regulations of: **BGV C1 (former VBG 70)** and **DIN VDE 0711-217**.

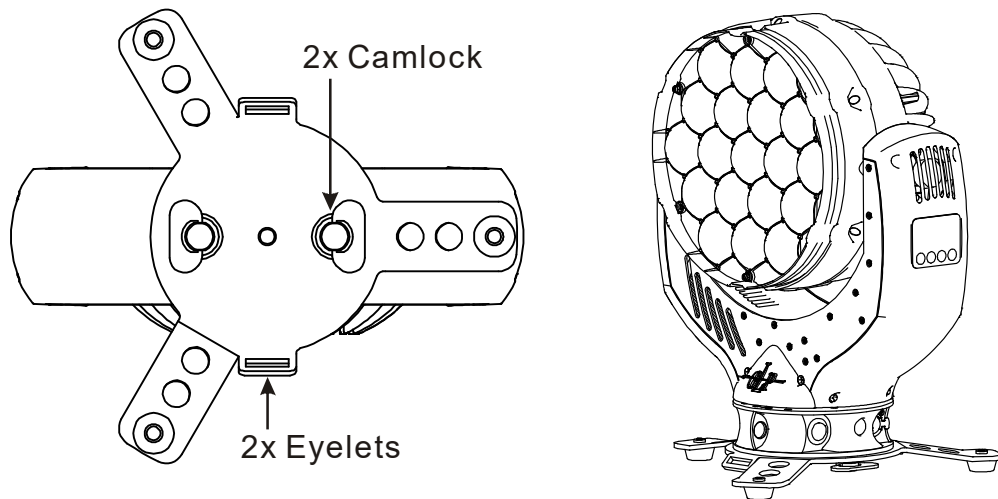
The installation shall be done by qualified staff only.

For the various mounting positions of the **IMPRESSION X4** (standing on the floor, sideways or hanging) different accessories kits are available. Through this a safe and firm installation is assured. You'll find dedicated connectors on the bottom side of the fixture which should be used. In addition the base is marked with a **FRONT** arrow allowing consistent orientation during installation.



### 2.2.1 Mounting on the Floor (Upright)

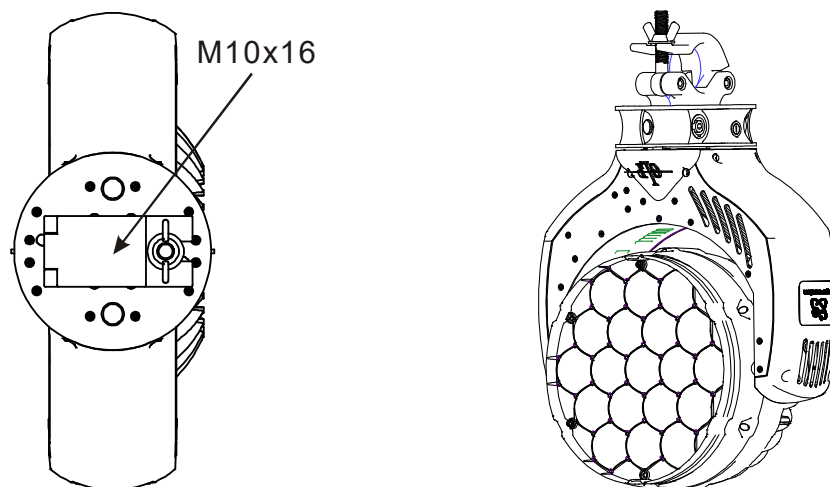
To operate the **IMPRESSION X4** in an upright position, please use the dedicated tri-legged floor stand supplied with your fixture. It is fixed to the base of the fixture with fasteners called Camlock quick-release connectors. Insert the two fasteners and turn each 90° to lock them. Do the opposite to release them again. On both sides you'll find eyelets to pull through a fixing strap. This allows for additional bracing of the fixture.



### 2.2.2 Mounting in hanging position

To operate the **IMPRESSION X4** in a hanging position please use a half-coupler (clamp). This can be mounted directly to the bottom side of the fixture. It should be attached centrally with a M10x16 mm thread bolt.

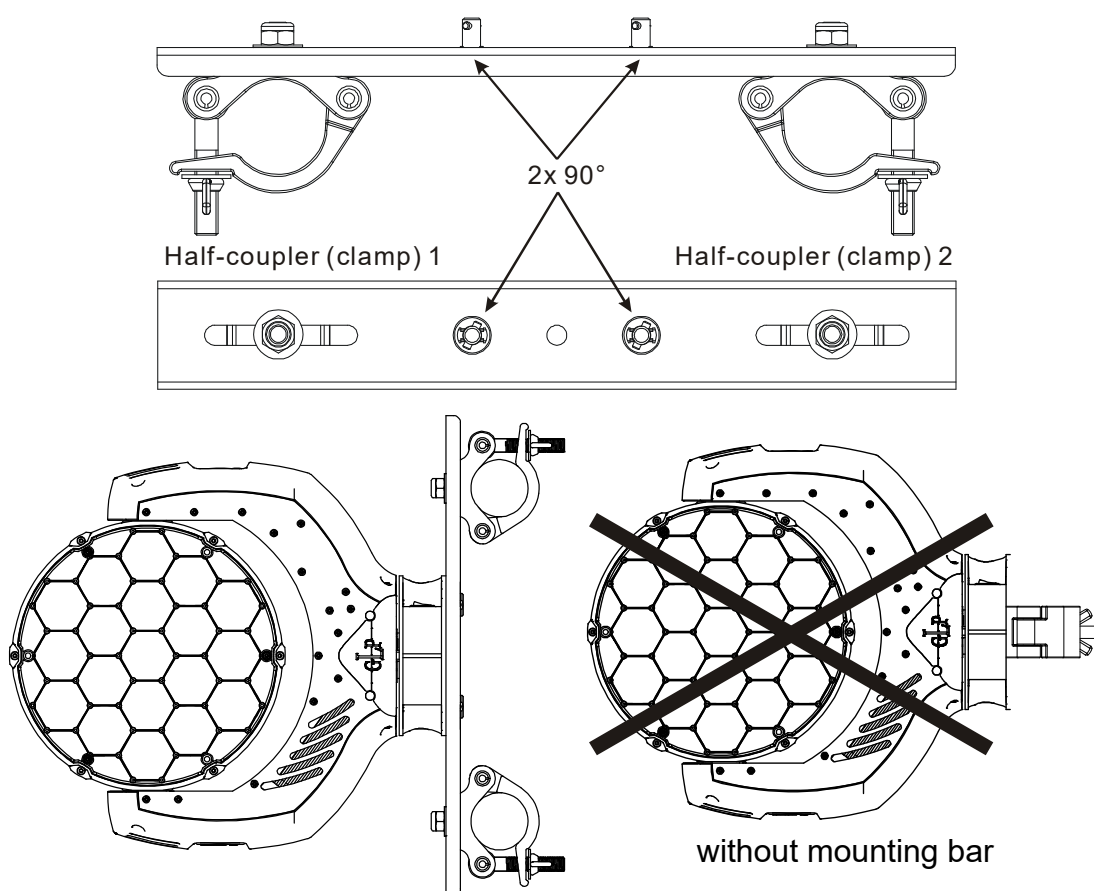
**Attention:** Never use a longer bolt as this may damage the interior of the fixture.





### 2.2.3 Mounting in sideways Position

To operate the **IMPRESSION X4** in a sideways position please use an additional mounting bar. This is fixed by two Camlock quick-release connectors. Two half-couplers (clamps) are used to mount the bar to a standard truss bar. This technique is necessary to cope with the torque which accrues in this mounting position. In addition it allows a re-positioning of the couplers to fit between two truss chords. Never use the "Mounting in hanging position" technique described above to fasten the fixture in the sideways position. A safe and sound installation can not be assured in this way. In addition this can damage the fixture base.



### 2.3 Securing the Fixture

Regardless of the mounting method of the **IMPRESSION X4** you'll have to use a stipulated safety wire. Attach the safety wire through one of the two holes provided on the base of the fixture and connect it to the primary support structure. Pay attention to a safe and proper fastening. The safety cable must comply with EN 60598-2-17 Section 17.6.6 and be capable of bearing a static suspended load that is ten times the weight of the fixture and all installed accessories.

## 2.4 Connections

### 2.4.1 Power Supply

~100-240 Volt AC, 50-60 Hz, earth contact type plug - Powercon

Connected load 350 VA (W) <=> T5A (micro-fuse 5x20mm)

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

**Disconnect from the mains supply for changing the fuse and use only the above described micro-fuse type.**

### 2.4.2 DMX

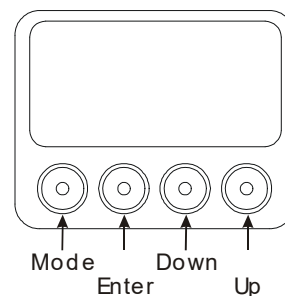
USITT DMX-512 Standard input/output in 5 pin connectors.

Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+] / Pin 4&5 N.C.

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

## 3 The Menu Field

You'll find the control board on the side part of the arm. It allows you to make all necessary adjustments of the **IMPRESSION X4**. With the **Mode**-key you get into the main menu. Afterwards you can navigate through 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.



To lock or unlock the keys of the menu field press Mode+Enter+Up simultaneously.

### ← MODE - ENTER →

| Level1                | Level 2    | Level 3         | Level 4 | Remark                                       |
|-----------------------|------------|-----------------|---------|----------------------------------------------|
| DMX Start Address 001 |            |                 |         | Set the DMX start address                    |
| Special               | Manual DMX |                 |         | Manual control of all fixture functions      |
|                       |            | Pan             |         | Manual control for Pan (X-movement)          |
|                       |            | Pattern Byte 3  |         | Manual control for Pattern Byte 3 LED 17 -19 |
|                       |            | Pattern Byte 2  |         | Manual control for Pattern Byte 2 LED 9 - 16 |
|                       |            | Pattern Byte 1  |         | Manual control for Pattern Byte 1 LED 1 - 8  |
|                       |            | Pattern         |         | Manual control for Pattern channel / bank    |
|                       |            | Zoom            |         | Manual control for Zoom                      |
|                       |            | Speed Movements |         | Manual control for Pan/Tilt movements        |

← DOWN - UP →

← DOWN - UP →

|                          |  |  |                             |                                                                              |
|--------------------------|--|--|-----------------------------|------------------------------------------------------------------------------|
|                          |  |  | <b>Pan/Tilt Movements</b>   | Manual control for Pan/Tilt movements                                        |
|                          |  |  | <b>Special</b>              |                                                                              |
|                          |  |  | <b>White Temperature</b>    | Manual control for Color temperature                                         |
|                          |  |  | <b>Dimmer</b>               | Manual control for Dimmer                                                    |
|                          |  |  | <b>Shutter</b>              | Manual control for Shutter                                                   |
|                          |  |  | <b>White</b>                | Manual control for White                                                     |
|                          |  |  | <b>Blue</b>                 | Manual control for blue                                                      |
|                          |  |  | <b>Green</b>                | Manual control for green                                                     |
|                          |  |  | <b>Red</b>                  | Manual control for red                                                       |
|                          |  |  | <b>Color Wheel</b>          | Manual control for the color wheel                                           |
|                          |  |  | <b>Tilt</b>                 | Manual control for Tilt (Y-movement)                                         |
|                          |  |  |                             |                                                                              |
|                          |  |  |                             |                                                                              |
|                          |  |  |                             |                                                                              |
| <b>Adjust</b>            |  |  | <b>Key code xxxx</b>        | Use the code for entering the calibration menu (for authorized persons only) |
|                          |  |  | <b>Display Contrast</b>     | Adjustment for the Display contrast                                          |
|                          |  |  | <b>PWM - Frequ. Adj.</b>    | Changes PMW frequency                                                        |
|                          |  |  | <b>Pan Offset</b>           | Calibration for Pan-Offset                                                   |
|                          |  |  | <b>Tilt Offset</b>          | Calibration for Tilt-Offset                                                  |
|                          |  |  | <b>LED adjust</b>           |                                                                              |
|                          |  |  | <b>White adjust red</b>     | Adjust intensity for red channel                                             |
|                          |  |  | <b>White adjust blue</b>    | Adjust intensity for blue channel                                            |
|                          |  |  | <b>White adjust green</b>   | Adjust intensity for green channel                                           |
|                          |  |  |                             |                                                                              |
|                          |  |  | <b>Clear EEPROM</b>         | Erase EEPROM memory                                                          |
|                          |  |  | <b>Diagnose</b>             | Diagnose fixture functions                                                   |
|                          |  |  |                             |                                                                              |
|                          |  |  |                             |                                                                              |
| <b>DMX Image</b>         |  |  | <b>Set image if DMX off</b> | Activates a stored scene if DMX is off                                       |
|                          |  |  | <b>Save image in memory</b> | Stores the scene currently sent to the unit                                  |
|                          |  |  |                             |                                                                              |
| <b>DMX input Monitor</b> |  |  |                             | Indicates the presently received DMX signal per DMX channel                  |
|                          |  |  | <b>Pan</b>                  | Instantaneous value for Pan                                                  |
|                          |  |  | <b>Tilt</b>                 | Instantaneous value for Tilt                                                 |
|                          |  |  | <b>Pattern Byte 3</b>       | Instantaneous value for Pattern Byte 3                                       |
|                          |  |  | <b>Pattern Byte 2</b>       | Instantaneous value for Pattern Byte 2                                       |
|                          |  |  | <b>Pattern Byte 1</b>       | Instantaneous value for Pattern Byte 1                                       |

← DOWN - UP →

|                          |                        |                           |                                                                    |
|--------------------------|------------------------|---------------------------|--------------------------------------------------------------------|
|                          |                        | <b>Pattern</b>            | Instantaneous value for Pattern channel / bank                     |
|                          |                        | <b>Zoom</b>               | Instantaneous value for Zoom                                       |
|                          |                        | <b>Speed Movements</b>    | Speed adjustment for Pan/Tilt movements → see item below           |
|                          |                        | <b>Pan/Tilt Movements</b> | Instantaneous value for Pan/Tilt movements                         |
|                          |                        | <b>Special</b>            | Instantaneous value for Special                                    |
|                          |                        | <b>White Temperature</b>  | Adjustment of the color temperature for WHITE                      |
|                          |                        | <b>Dimmer</b>             | Instantaneous value for Dimmer                                     |
|                          |                        | <b>Shutter</b>            | Instantaneous value for Shutter                                    |
|                          |                        | <b>White</b>              | Instantaneous value for White                                      |
|                          |                        | <b>Blue</b>               | Instantaneous value for Blue                                       |
|                          |                        | <b>Green</b>              | Instantaneous value for Green                                      |
|                          |                        | <b>Red</b>                | Instantaneous value for Red                                        |
|                          |                        | <b>Color Wheel</b>        | Instantaneous value for Color Mixing unit                          |
| <b>Set DMX Mode</b>      |                        |                           | Select the desired DMX Mode                                        |
|                          | <b>Compressed Mode</b> |                           | Fixture works in "Compressed" mode → see also section 4 below      |
|                          | <b>Normal Mode</b>     |                           | Fixture works in "Normal" mode → see also section 4 below          |
|                          | <b>High-Res. Mode</b>  |                           | Fixture works in "High Resolution" mode → see also section 4 below |
| <b>Position feedback</b> |                        |                           | Switch automatic position feedback ON/OFF                          |
| <b>Reverse Pan</b>       |                        |                           | Invert Pan movements: ON/OFF                                       |
| <b>Reverse Tilt</b>      |                        |                           | Invert Tilt movements: ON/OFF                                      |
| <b>Reset</b>             |                        |                           | RESET and new calibration for all functions                        |

## 4 DMX Channel Selection (DMX Protocol)

### Normal-Mode 20 DMX channels

| Channel                 | Function                                          | Time and Value            | DMX      | %        |
|-------------------------|---------------------------------------------------|---------------------------|----------|----------|
| <b>1) PAN-coarse</b>    | 0 .. 623°                                         | 3,2s                      | 0..255   | 0..100   |
| <b>2) PAN-fine</b>      |                                                   |                           | 0..255   | 0..100   |
| <b>3) Tilt-coarse</b>   | 0 .. 242°                                         | 1,5s                      | 0..255   | 0..100   |
| <b>4) Tilt-fine</b>     |                                                   |                           | 0..255   | 0..100   |
| <b>5) Color (fixed)</b> | Colors adjustable via RGB                         |                           | 0..7     | 0..2..5  |
|                         | Color 01 - Red <sup>1)</sup>                      |                           | 8..15    | 3..5.5   |
|                         | Color 02 - Amber <sup>1)</sup>                    |                           | 16..23   | 6..8.5   |
|                         | Color 03 - Warm Yellow <sup>1)</sup>              |                           | 24..31   | 9..12.5  |
|                         | Color 04 - Yellow <sup>1)</sup>                   |                           | 32..39   | 13..15.5 |
|                         | Color 05 - Green <sup>1)</sup>                    |                           | 40..47   | 16..18.5 |
|                         | Color 06 - Turquoise <sup>1)</sup>                |                           | 48..55   | 19..21.5 |
|                         | Color 07 - Cyan <sup>1)</sup>                     |                           | 56..63   | 22..24.5 |
|                         | Color 08 - Blue <sup>1)</sup>                     |                           | 64..71   | 25..27.5 |
|                         | Color 09 - Lavender <sup>1)</sup>                 |                           | 72..79   | 28..30.5 |
|                         | Color 10 - Malve <sup>1)</sup>                    |                           | 80..87   | 31..34.5 |
|                         | Color 11 - Magenta <sup>1)</sup>                  |                           | 88..95   | 35..37.5 |
|                         | Color 12 - Pink <sup>1)</sup>                     |                           | 96..103  | 38..40.5 |
|                         | White - CTO                                       | 3200K                     | 104..111 | 41..43.5 |
|                         | White                                             | 5600K                     | 112..119 | 44..46.5 |
|                         | White - CTB                                       | 7200K                     | 120..127 | 47..49.5 |
|                         | Rainbow Effect Stop <sup>2)</sup>                 |                           | 128      | 50       |
|                         | Rainbow Effect <sup>3)</sup>                      | slow - fast               | 129..223 | 51..88   |
|                         | Random colors                                     | slow - fast               | 224..255 | 89..100  |
| <b>6) Red</b>           | Color mixing system - Red                         | 0 - 100%                  | 0..255   | 0..100   |
| <b>7) Green</b>         | Color mixing system - Green                       | 0 - 100%                  | 0..255   | 0..100   |
| <b>8) Blue</b>          | Color mixing system - Blue                        | 0 - 100%                  | 0..255   | 0..100   |
| <b>9) White</b>         | Color mixing system - White                       | 0 - 100%                  | 0..255   | 0..100   |
| <b>10) Shutter</b>      | Shutter closed                                    |                           | 0..15    | 0..5.5   |
|                         | Shutter pulse random                              | slow – fast               | 16..47   | 6..18.5  |
|                         | Up-dimming then Shutter closing (random patterns) | slow – fast               | 48..79   | 19..31   |
|                         | Shutter open then down-dimming (random patterns)  | slow – fast               | 80..111  | 32..43   |
|                         | Up-dimming then down-dimming (random patterns)    | slow – fast               | 112..143 | 44..56   |
|                         | Strobe effect pause                               | 5s - 0.1s                 | 160..199 | 63..77   |
|                         | Strobe effect slow - fast                         | 1 Hz - 10 Hz              | 200..239 | 78..94   |
|                         | Shutter open                                      |                           | 240..255 | 95..100  |
| <b>11) Dimmer</b>       | Dimmer                                            | 0 - 100%                  | 0..255   | 0..100   |
| <b>12) CTO</b>          | No CTO                                            |                           | 0..7     | 0..2.5   |
|                         | Continuous color temperature correction           | Applicable for ALL colors | 8..255   | 3..100   |
| <b>13) Special</b>      | Pattern Block 1 → channel 17                      |                           | 0..3     | 0..1     |
|                         | Pattern Block 2 → channel 17                      |                           | 4..7     | 1.5..2.5 |
|                         | PWM lower                                         | ~ 582 Hz .. ~ 600Hz       | 100..149 | 39..57   |
|                         | PWM (Default)                                     | 600Hz                     | 150      | 58       |
|                         | PWM higher                                        | ~ 600 Hz .. ~ 618 Hz      | 151..200 | 59..78   |
|                         | <b>RESET</b>                                      |                           | 250..255 | 98..100  |
| <b>14) Movement</b>     | <b>No macros</b>                                  |                           | 0        | 0        |

| Channel                             | Function                                                                                    |             |                      | Time and Value        | DMX      | %       |
|-------------------------------------|---------------------------------------------------------------------------------------------|-------------|----------------------|-----------------------|----------|---------|
| <b>macros</b>                       | <b>Movement</b>                                                                             | <b>Size</b> | <b>Phase</b>         | Use "Speed" to adjust |          |         |
|                                     | PAN                                                                                         | 1           | 0°                   |                       | 01..01   | 0.5     |
|                                     |                                                                                             | 1           | 90°                  |                       | 02..03   | 1.0     |
|                                     |                                                                                             | 1           | 180°                 |                       | 04..05   | 1.7     |
|                                     |                                                                                             | 1           | 270°                 |                       | 06..07   | 2.5     |
|                                     | PAN                                                                                         | 2           | 0°                   |                       | 08..09   | 3.3     |
|                                     |                                                                                             | 2           | 90°                  |                       | 10..11   | 4.1     |
|                                     |                                                                                             | 2           | 180°                 |                       | 12..13   | 4.9     |
|                                     |                                                                                             | 2           | 270°                 |                       | 14..15   | 5.7     |
|                                     | PAN                                                                                         | 3           | 0°                   |                       | 16..17   | 6.5     |
|                                     |                                                                                             | 3           | 90°                  |                       | 18..19   | 7.3     |
|                                     |                                                                                             | 3           | 180°                 |                       | 20..21   | 8.0     |
|                                     |                                                                                             | 3           | 270°                 |                       | 22..23   | 8.8     |
|                                     | PAN                                                                                         | 4           | 0°                   |                       | 24..25   | 9.6     |
|                                     |                                                                                             | 4           | 90°                  |                       | 26..27   | 10.4    |
|                                     |                                                                                             | 4           | 180°                 |                       | 28..29   | 11.2    |
|                                     |                                                                                             | 4           | 270°                 |                       | 30..31   | 12      |
|                                     | TILT                                                                                        |             | size / phase see PAN |                       | 32..63   | 13..25  |
|                                     | PAN / TILT                                                                                  |             | size / phase see PAN |                       | 64..95   | 26..37  |
|                                     | PAN / TILT (inverse)                                                                        |             | size / phase see PAN |                       | 96..127  | 38..50  |
|                                     | Circle                                                                                      |             | size / phase see PAN |                       | 128..159 | 51..62  |
|                                     | Circle (inverse)                                                                            |             | size / phase see PAN |                       | 160..191 | 63..75  |
|                                     | Lying eight                                                                                 |             | size / phase see PAN |                       | 192..223 | 76..87  |
|                                     | Random movement                                                                             |             | size / phase see PAN |                       | 224..255 | 88..100 |
| <b>15) Speed</b><br><b>Pan/Tilt</b> | Pan/Tilt movement speed from controller                                                     |             |                      |                       | 0..1     | 0..0.5  |
|                                     | Pan/Tilt, slow – fast<br>Use this channel also for the speed of the movements (channel 14). |             |                      |                       | 02..255  | 1..100  |
| <b>16) Zoom</b>                     | Wide - narrow (spot)                                                                        |             |                      |                       | 0...255  | 0...100 |
| <b>17) Pattern</b>                  | No pattern                                                                                  |             |                      |                       | 0..2     | 0..1    |
|                                     | 250 pre-defined patterns (see appendix A)                                                   |             |                      |                       | 03..253  | 2..99   |
|                                     | Activates direct access to LED Pattern                                                      |             |                      | See channels 18-20    | 254..255 | 100     |
| <b>18) Pattern Byte 1</b>           | Direct access to Pattern of LED 1..8                                                        |             |                      |                       | 0...255  | 0...100 |
| <b>19) Pattern Byte 2</b>           | Direct access to Pattern of LED 9..16                                                       |             |                      |                       | 0...255  | 0...100 |
| <b>20) Pattern Byte 3</b>           | Direct access to Pattern of LED 17..19                                                      |             |                      |                       | 0..07    | 0..2.5  |

### Compress-Mode 14 DMX channels

| Channel        | Function                  | Time and Value | DMX    | %      |
|----------------|---------------------------|----------------|--------|--------|
| 1) PAN-coarse  | 0 .. 623°                 | 3,2s           | 0..255 | 0..100 |
| 2) PAN-fine    |                           |                | 0..255 | 0..100 |
| 3) Tilt-coarse | 0 .. 242°                 | 1,5s           | 0..255 | 0..100 |
| 4) Tilt-fine   |                           |                | 0..255 | 0..100 |
| 5) Color       | Colors adjustable via RGB |                | 0..7   | 0..2.5 |

| Channel            | Function                                             | Time and Value             | DMX      | %        |
|--------------------|------------------------------------------------------|----------------------------|----------|----------|
| <b>(fixed)</b>     | Color 01 - Red <sup>1)</sup>                         |                            | 8..15    | 3..5.5   |
|                    | Color 02 - Amber <sup>1)</sup>                       |                            | 16..23   | 6..8.5   |
|                    | Color 03 - Warm Yellow <sup>1)</sup>                 |                            | 24..31   | 9..12.5  |
|                    | Color 04 - Yellow <sup>1)</sup>                      |                            | 32..39   | 13..15.5 |
|                    | Color 05 - Green <sup>1)</sup>                       |                            | 40..47   | 16..18.5 |
|                    | Color 06 - Turquoise <sup>1)</sup>                   |                            | 48..55   | 19..21.5 |
|                    | Color 07 - Cyan <sup>1)</sup>                        |                            | 56..63   | 22..24.5 |
|                    | Color 08 - Blue <sup>1)</sup>                        |                            | 64..71   | 25..27.5 |
|                    | Color 09 - Lavender <sup>1)</sup>                    |                            | 72..79   | 28..30.5 |
|                    | Color 10 - Mauve <sup>1)</sup>                       |                            | 80..87   | 31..34.5 |
|                    | Color 11 - Magenta <sup>1)</sup>                     |                            | 88..95   | 35..37.5 |
|                    | Color 12 - Pink <sup>1)</sup>                        |                            | 96..103  | 38..40.5 |
|                    | White - CTO                                          | Color temperature<br>3200K | 104..111 | 41..43.5 |
|                    | White                                                | Color temperature<br>5600K | 112..119 | 44..46.5 |
|                    | White - CTB                                          | Color temperature<br>7200K | 120..127 | 47..49.5 |
| <b>6) Red</b>      | Rainbow Effect Stop <sup>2)</sup>                    |                            | 128      | 50       |
|                    | Rainbow Effect <sup>3)</sup>                         | slow - fast                | 129..223 | 51..88   |
|                    | Rainbow Effect, random colors                        | slow - fast                | 224..255 | 89..100  |
| <b>7) Green</b>    | Color mixing system - Green                          | 0 - 100%                   | 0..255   | 0..100   |
| <b>8) Blue</b>     | Color mixing system - Blue                           | 0 - 100%                   | 0..255   | 0..100   |
| <b>9) White</b>    | Color mixing system - White                          | 0 - 100%                   | 0..255   | 0..100   |
| <b>10) Shutter</b> | Shutter closed                                       |                            | 0..15    | 0..5.5   |
|                    | Random Pulse effect                                  | slow - fast                | 16..47   | 6..18.5  |
|                    | Up-dimming then Shutter closing<br>(random patterns) | slow - fast                | 48..79   | 19..31.5 |
|                    | Shutter open then down-dimming<br>(random patterns)  | slow - fast                | 80..111  | 32..43   |
|                    | Up-dimming then down-dimming<br>(random patterns)    | slow - fast                | 112..143 | 44..56   |
|                    | Strobe effect pause                                  | 5s .. 1s                   | 144..199 | 57..77   |
|                    | Strobe effect, slow - fast                           | 1 Hz .. 10 Hz              | 200..239 | 78..94   |
|                    | Shutter open                                         |                            | 240..249 | 95..97.5 |
|                    | Shutter open                                         |                            | 251..255 | 99..100  |
| <b>11) Dimmer</b>  | Dimmer                                               | 0 - 100%                   | 0..255   | 0..100   |
| <b>12) Zoom</b>    | Wide - narrow (spot)                                 |                            | 0..255   | 0..100   |
| <b>13) Special</b> | Pattern Block 1 → channel 14                         |                            | 0..3     | 0..1     |
|                    | Pattern Block 2 → channel 14                         |                            | 4..7     | 1.5..2.5 |
|                    | PWM lower                                            | ~ 582 Hz .. ~ 600Hz        | 100..149 | 39..57   |
|                    | PWM (Default)                                        | 600Hz                      | 150      | 58       |
|                    | PWM higher                                           | ~ 600 Hz .. ~ 618 Hz       | 151..200 | 59..78   |
|                    | <b>RESET</b>                                         |                            | 250..255 | 98..100  |
| <b>14) Pattern</b> | No pattern                                           |                            | 0..2     | 0..1     |
|                    | 250 pre-defined patterns<br>(see appendix A)         |                            | 03..253  | 2..99    |

**High Resolution (Extended) -Mode 21 DMX Channels**

| Channel            | Function                                          | Time and Value       | DMX       | %        |
|--------------------|---------------------------------------------------|----------------------|-----------|----------|
| 1) PAN-coarse      | 0 .. 623°                                         | 3,2s                 | 0..255    | 0..100   |
| 2) PAN-fine        |                                                   |                      | 0..255    | 0..100   |
| 3) Tilt-coarse     | 0 .. 242°                                         | 1,5s                 | 0..255    | 0..100   |
| 4) Tilt-fine       |                                                   |                      | 0..255    | 0..100   |
| 5) Red-coarse      | Color mixing system – Red                         | 0 - 100%             | 0..255    | 0..100   |
| 6) Red-fine        | Color mixing system – Red-Low                     |                      | 0..255    | 0..100   |
| 7) Green-coarse    | Color mixing system – Green                       | 0 - 100%             | 0..255    | 0..100   |
| 8) Green-fine      | Color mixing system – Green-Low                   |                      | 0..255    | 0..100   |
| 9) Blue-coarse     | Color mixing system – Blue                        | 0 - 100%             | 0..255    | 0..100   |
| 10) Blue-fine      | Color mixing system – Blue-Low                    |                      | 0..255    | 0..100   |
| 11) White-coarse   | Color mixing system – White                       | 0 - 100%             | 0..255    | 0..100   |
| 12) White-fine     | Color mixing system – White-Low                   |                      | 0..255    | 0..100   |
| 13) Shutter        | Shutter closed                                    |                      | 0..15     | 0..5.5   |
|                    | Random Pulse effect                               | slow - fast          | 16..47    | 6..18.5  |
|                    | Up-dimming then Shutter closing (random patterns) | slow - fast          | 48..79    | 19..31.5 |
|                    | Shutter open then down-dimming (random patterns)  | slow - fast          | 80..111   | 32..43   |
|                    | Up-dimming then down-dimming (random patterns)    | slow - fast          | 112..143  | 44..56   |
|                    | Strobe effect pause                               | 5s - 1s              | 144..199  | 57..77   |
|                    | Strobe effect, slow - fast                        | 1 Hz - 10 Hz         | 200..239  | 78..94   |
|                    | Shutter open                                      |                      | 240...249 | 95..97.5 |
|                    | Shutter open                                      |                      | 251..255  | 99..100  |
| 14) Dimmer-coarse  | Dimmer                                            | 0 - 100%             | 0..255    | 0..100   |
| 15) Dimmer-fine    | Dimmer - Low                                      |                      | 0..255    | 0..100   |
| 16) Zoom           | Spot - Flood                                      |                      | 0...255   | 0...100  |
| 17) Special        | Pattern Block 1 → channel 18                      |                      | 0..3      | 0..1     |
|                    | Pattern Block 2 → channel 18                      |                      | 4..7      | 1.5..2.5 |
|                    | PWM lower                                         | ~ 582 Hz .. ~ 600Hz  | 100..149  | 39..57   |
|                    | PWM (Default)                                     | 600Hz                | 150       | 58       |
|                    | PWM higher                                        | ~ 600 Hz .. ~ 618 Hz | 151..200  | 59..78   |
|                    | <b>RESET</b>                                      |                      | 250..255  | 98..100  |
| 18) Pattern        | No pattern                                        |                      | 0..2      | 0..1     |
|                    | 250 pre-defined patterns (see appendix A)         |                      | 03..253   | 2..99    |
|                    | Activates direct access to LED Pattern            | See channels 18-20   | 254..255  | 100      |
| 19) Pattern Byte 1 | Direct access to Pattern of LED 1..8              |                      | 0...255   | 0...100  |
| 20) Pattern Byte 2 | Direct access to Pattern of LED 9..16             |                      | 0...255   | 0...100  |
| 21) Pattern Byte 3 | Direct access to Pattern of LED 17..19            |                      | 0..07     | 0..2.5   |

1) The predefined colors can be used as start-colors for the Rainbow effect. Please select first a desired start-color before you activate the rainbow effect. All **IMPRESSION X4** will then start from that color and will execute the rainbow effect synchronously. Different **IMPRESSION X4** can have different start-colors but will still execute the rainbow effect synchronously. If you choose a color



different from the ones marked with <sup>1)</sup> in the tables above the rainbow start-color will be red.

<sup>2)</sup> Rainbow-effect Stop will pause this function. After resuming the rainbow-effect will be continued from the current color.

<sup>3)</sup> The Rainbow-effect will run synchronously only if started from one of the predefined colors (see also <sup>1)</sup> before).

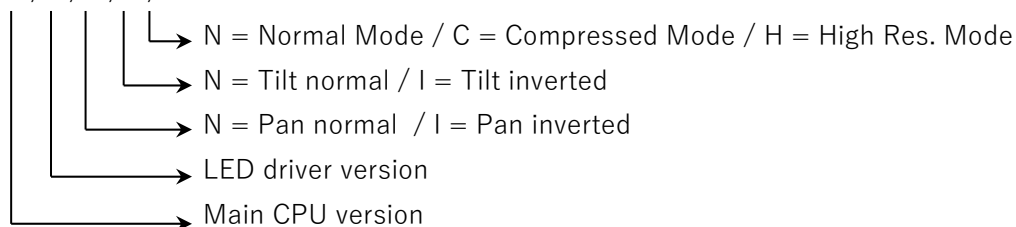
### **Locking and unlocking the Control Panel**

Please lock and unlock the control panel by pressing the menu keys **MODE & ENTER & UP** at the same time.

### **Additional Display Indications**

As a default you'll find the following additional information in the first row of the LCD display:

Vxx/xx/xx/xx/x



## 5 Maintaining and Cleaning the IMPRESSION X4

The **IMPRESSION X4** is a fixture of very low maintenance. It is only necessary to clean the air inlets and outlets as well as the optical LED lenses from time to time. For safe operation it is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on, or within the fixture. Otherwise the fixture's light-output will be significantly reduced or damages can occur. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to operate 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!**

### 5.1 Safety regulations

- **Pull out the mains power plug!**
- Wait min. 15 minutes after disconnecting power to allow the fixture to cool down.

### 5.2 Maintenance and Interval (rule-of-thumb)

The contamination of the fixture depends on the environment details. Hence no general guidelines can be given. The intervals given below are only suggestions from our experience.

| Position                         | Interval | In this way                    |
|----------------------------------|----------|--------------------------------|
| LED reflector and optical system | weekly   | soft brush /lint-free cloth    |
| Fan and air channel              | monthly  | vacuum cleaner, airbrush, etc. |

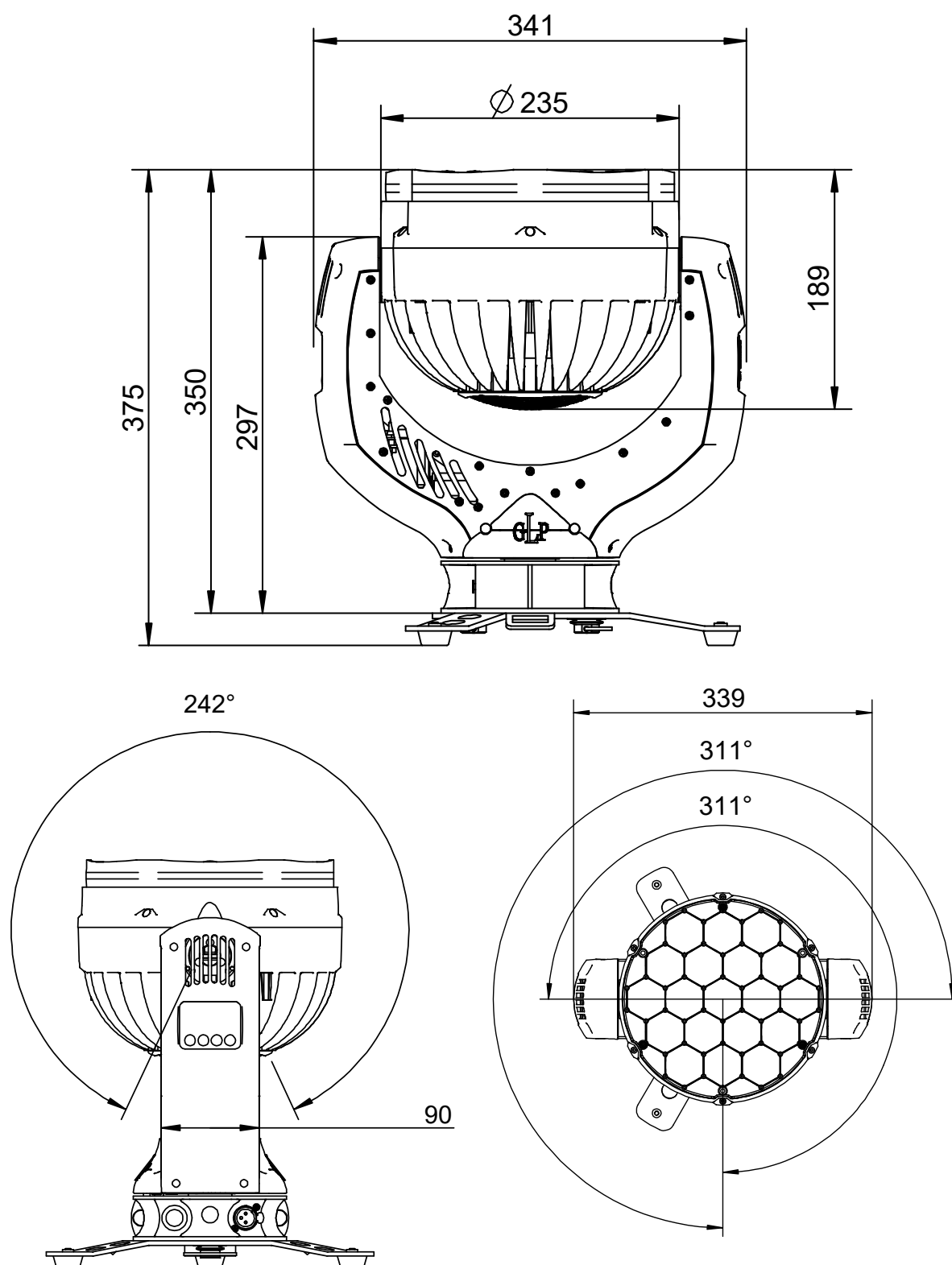
#### **Attention:**

- **Never let optical parts come into contact with oil or fat.**
- **Before running the fixture wait until all parts are dry.**
- **Never touch lenses with bare fingers.**

## 6 Technical Specifications

|                                                                                                                                                        |                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>Power supply</b>                                                                                                                                    |                                              |
| <b>Power consumption</b>                                                                                                                               | 350 VA (Watt)                                |
| <b>Power Input</b>                                                                                                                                     | ~100-240 V AC, 50-60 Hz (wide range input)   |
| <b>Fuse protection</b>                                                                                                                                 | Micro-fuse 5x20 mm, T5A                      |
| <b>Operational Parameters</b>                                                                                                                          |                                              |
| <b>Max. Ambient Temperature</b>                                                                                                                        | 5° - 45°C (integrated overheating switch)    |
| <b>Mounting Position</b>                                                                                                                               | Any (see relevant chapter)                   |
| <b>Lighting System - Additive Color mixing</b>                                                                                                         |                                              |
| <b>LED Type</b>                                                                                                                                        | 19 x Osram Ostar RGBW multi-chip             |
| <b>Lifetime</b>                                                                                                                                        | 50,000 h                                     |
| Wavelength optimized for maximum presentable color space                                                                                               |                                              |
| <b>Optical System</b>                                                                                                                                  |                                              |
| Full RGBW / High efficient Collimator cluster                                                                                                          |                                              |
| <b>Shutter / Dimmer (8/16 Bit)</b>                                                                                                                     |                                              |
| Strobe- Effect with variable speed between 1 - 10 flashes per second, Random-Strobe, Pulse-Effects                                                     |                                              |
| Continuous Dimmer 0 - 100%                                                                                                                             |                                              |
| <b>Zoom</b>                                                                                                                                            |                                              |
| 7 to 50 degree continuous zoom                                                                                                                         |                                              |
| <b>Optical Patterns</b>                                                                                                                                |                                              |
| Several hundred pre-defined beam patterns with direct access and manipulation                                                                          |                                              |
| <b>DMX Control</b>                                                                                                                                     |                                              |
| Standard USITT DMX-512, 5 pin XLR; [+] = Pin 3 / [-] = Pin 2 / [Ground] = Pin 1 / Pin 4&5 N.C.<br>Die DMX- Addressing starts at the DMX channel [001]. |                                              |
| <b>Pan / Tilt (8/16 Bit)</b>                                                                                                                           |                                              |
| <b>Pan- movement</b>                                                                                                                                   | 623° in min. 3,2 seconds (Position Feedback) |
| <b>Tilt- movement</b>                                                                                                                                  | 242° in min. 1,5 seconds (Position Feedback) |
| <b>Weights and Measures</b>                                                                                                                            |                                              |
| <b>Width of the base</b>                                                                                                                               | 341 mm                                       |
| <b>Length of the base</b>                                                                                                                              | 145 mm                                       |
| <b>height (head vertical)</b>                                                                                                                          | 375 mm (incl. standing foot/tripod)          |
| <b>Weight (net)</b>                                                                                                                                    | 8.0 kg                                       |

## 7 Dimensions



## 8 Index

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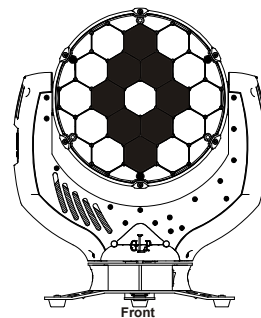
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## 9 Pattern

Patterns are grouped into two sets which can be activated and selected via the DMX channel "Special". Choose the desired pattern by its corresponding DMX value on channel "Pattern".

**Orientation:** Patterns are shown when looking at the **front** of a standing fixture; Head faced in direction of fixtures front label: DMX Pan @ 128; Tilt @ 220; Zoom @ 255 (letters are displayed homogenous).



### Patterns Set 1

| DMX | Pattern |
|-----|---------|
| 000 |         |
| 001 |         |
| 002 |         |
| 003 |         |
| 004 |         |
| 005 |         |
| 006 |         |
| 007 |         |
| 008 |         |
| 009 |         |
| 010 |         |
| 011 |         |
| 012 |         |

| DMX | Pattern |
|-----|---------|
| 013 |         |
| 014 |         |
| 015 |         |
| 016 |         |
| 017 |         |
| 018 |         |
| 019 |         |
| 020 |         |
| 021 |         |
| 022 |         |
| 023 |         |
| 024 |         |
| 025 |         |

| DMX | Pattern |
|-----|---------|
| 026 |         |
| 027 |         |
| 028 |         |
| 029 |         |
| 030 |         |
| 031 |         |
| 032 |         |
| 033 |         |
| 034 |         |
| 035 |         |
| 036 |         |
| 037 |         |
| 038 |         |

| DMX | Pattern |
|-----|---------|
| 039 |         |
| 040 |         |
| 041 |         |
| 042 |         |
| 043 |         |
| 044 |         |
| 045 |         |
| 046 |         |
| 047 |         |
| 048 |         |
| 049 |         |
| 050 |         |
| 051 |         |

| DMX | Pattern |
|-----|---------|
| 052 |         |
| 053 |         |
| 054 |         |
| 055 |         |
| 056 |         |
| 057 |         |
| 058 |         |
| 059 |         |
| 060 |         |
| 061 |         |
| 062 |         |
| 063 |         |
| 064 |         |
| 065 |         |
| 066 |         |
| 067 |         |
| 068 |         |

| DMX | Pattern |
|-----|---------|
| 069 |         |
| 070 |         |
| 071 |         |
| 072 |         |
| 073 |         |
| 074 |         |
| 075 |         |
| 076 |         |
| 077 |         |
| 078 |         |
| 079 |         |
| 080 |         |
| 081 |         |
| 082 |         |
| 083 |         |
| 084 |         |
| 085 |         |

| DMX | Pattern |
|-----|---------|
| 086 |         |
| 087 |         |
| 088 |         |
| 089 |         |
| 090 |         |
| 091 |         |
| 092 |         |
| 093 |         |
| 094 |         |
| 095 |         |
| 096 |         |
| 097 |         |
| 098 |         |
| 099 |         |
| 100 |         |
| 101 |         |
| 102 |         |

| DMX | Pattern |
|-----|---------|
| 103 |         |
| 104 |         |
| 105 |         |
| 106 |         |
| 107 |         |
| 108 |         |
| 109 |         |
| 110 |         |
| 111 |         |
| 112 |         |
| 113 |         |
| 114 |         |
| 115 |         |
| 116 |         |
| 117 |         |
| 118 |         |
| 119 |         |

| DMX | Pattern |
|-----|---------|
| 120 |         |
| 121 |         |
| 122 |         |
| 123 |         |
| 124 |         |
| 125 |         |
| 126 |         |
| 127 |         |
| 128 |         |
| 129 |         |
| 130 |         |
| 131 |         |
| 132 |         |
| 133 |         |
| 134 |         |
| 135 |         |
| 136 |         |

| DMX | Pattern |
|-----|---------|
| 137 |         |
| 138 |         |
| 139 |         |
| 140 |         |
| 141 |         |
| 142 |         |
| 143 |         |
| 144 |         |
| 145 |         |
| 146 |         |
| 147 |         |
| 148 |         |
| 149 |         |
| 150 |         |
| 151 |         |
| 152 |         |
| 153 |         |

| DMX | Pattern |
|-----|---------|
| 154 |         |
| 155 |         |
| 156 |         |
| 157 |         |
| 158 |         |
| 159 |         |
| 160 |         |
| 161 |         |
| 162 |         |
| 163 |         |
| 164 |         |
| 165 |         |
| 166 |         |
| 167 |         |
| 168 |         |
| 169 |         |
| 170 |         |

| DMX | Pattern |
|-----|---------|
| 171 |         |
| 172 |         |
| 173 |         |
| 174 |         |
| 175 |         |
| 176 |         |
| 177 |         |
| 178 |         |
| 179 |         |
| 180 |         |
| 181 |         |
| 182 |         |
| 183 |         |
| 184 |         |
| 185 |         |
| 186 |         |
| 187 |         |



| DMX | Pattern |
|-----|---------|
| 188 |         |
| 189 |         |
| 190 |         |
| 191 |         |
| 192 |         |
| 193 |         |
| 194 |         |
| 195 |         |
| 196 |         |
| 197 |         |
| 198 |         |
| 199 |         |
| 200 |         |
| 201 |         |
| 202 |         |
| 203 |         |
| 204 |         |

| DMX | Pattern |
|-----|---------|
| 205 |         |
| 206 |         |
| 207 |         |
| 208 |         |
| 209 |         |
| 210 |         |
| 211 |         |
| 212 |         |
| 213 |         |
| 214 |         |
| 215 |         |
| 216 |         |
| 217 |         |
| 218 |         |
| 219 |         |
| 220 |         |
| 221 |         |

| DMX | Pattern |
|-----|---------|
| 222 |         |
| 223 |         |
| 224 |         |
| 225 |         |
| 226 |         |
| 227 |         |
| 228 |         |
| 229 |         |
| 230 |         |
| 231 |         |
| 232 |         |
| 233 |         |
| 234 |         |
| 235 |         |
| 236 |         |
| 237 |         |
| 238 |         |

| DMX | Pattern  |
|-----|----------|
| 239 |          |
| 240 |          |
| 241 |          |
| 242 |          |
| 243 |          |
| 244 |          |
| 245 |          |
| 246 |          |
| 247 |          |
| 248 |          |
| 249 |          |
| 250 |          |
| 251 |          |
| 252 |          |
| 253 | reserved |
| 254 | reserved |
| 255 | reserved |

**Patterns Set 2**

| DMX | Pattern |
|-----|---------|
| 000 |         |
| 001 |         |
| 002 |         |
| 003 |         |
| 004 |         |
| 005 |         |
| 006 |         |
| 007 |         |
| 008 |         |
| 009 |         |
| 010 |         |
| 011 |         |
| 012 |         |
| 013 |         |
| 014 |         |
| 015 |         |
| 016 |         |

| DMX | Pattern |
|-----|---------|
| 017 |         |
| 018 |         |
| 019 |         |
| 020 |         |
| 021 |         |
| 022 |         |
| 023 |         |
| 024 |         |
| 025 |         |
| 026 |         |
| 027 |         |
| 028 |         |
| 029 |         |
| 030 |         |
| 031 |         |
| 032 |         |
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| DMX | Pattern |
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| 034 |         |
| 035 |         |
| 036 |         |
| 037 |         |
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| 046 |         |
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| DMX | Pattern |
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| 051 |         |
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| 056 |         |
| 057 |         |
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