

Instruction Manual

VOLKS | LICHT

R-G-B



from software version 1.08
(Instruction version 1.0)



— since 1994 —

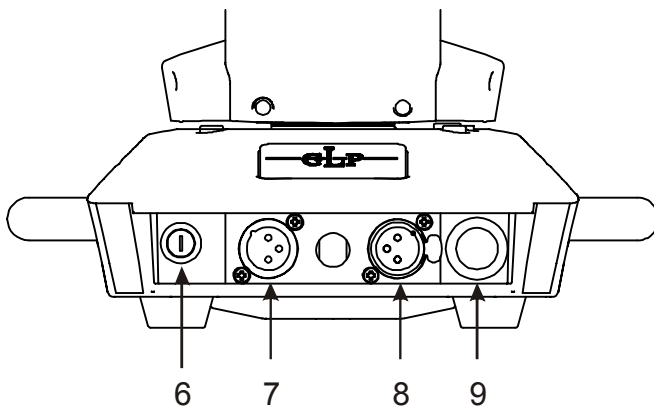
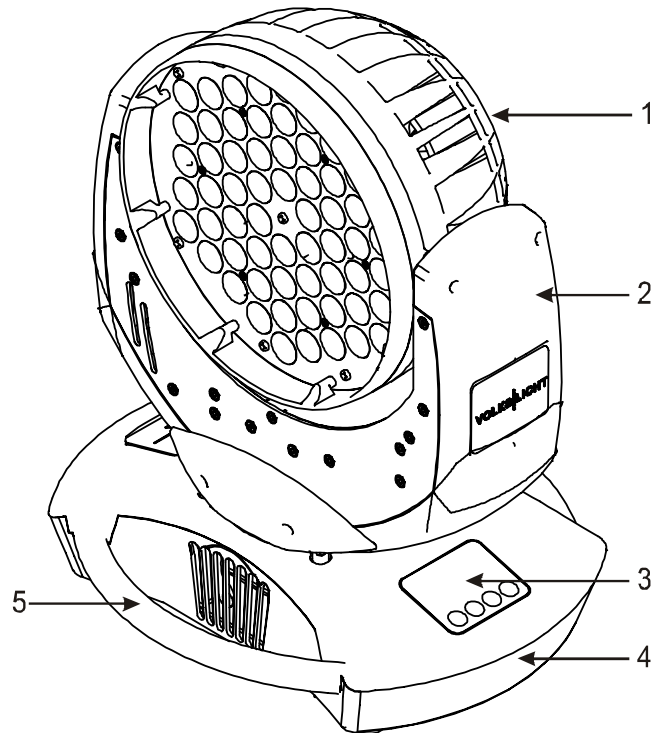
e-mail: service@glp.de
Internet: <http://www.glp.de>

Table of content

| | | |
|----------|--|-----------|
| 1 | Description of Device | 4 |
| 1.1 | Safety Instructions | 5 |
| 2 | Preparation and Installation | 6 |
| 2.1 | Mounting | 6 |
| 2.1.1 | <i>Mounting on the Floor (Upright)</i> | 6 |
| 2.1.2 | <i>Mounting in hanging Position (Head first)</i> | 7 |
| 2.1.3 | <i>Mounting in sidewise Position</i> | 7 |
| 2.2 | Secure the Device..... | 8 |
| 2.3 | Connections | 8 |
| 2.3.1 | <i>Power Supply</i> | 8 |
| 2.3.2 | <i>DMX</i> | 8 |
| 3 | The Menu Field | 9 |
| 4 | DMX Channel Selection (DMX Protocol) | 11 |
| 5 | Maintaining and Cleaning the VOLKSLICHT | 13 |
| 5.1 | Safety regulations | 13 |
| 5.2 | Circumference and Interval (rule-of-thumb) | 13 |
| 6 | Technical Specifications | 14 |
| 7 | System dimensions (in mm) | 15 |
| 8 | Index | 16 |

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
5. Carrying handle. It is also used to attach the safety cable



6. Micro-fuse 5x20mm, T2A
7. DMX- Input (3 pole)
8. DMX- Output (3 pole)
9. Power On-/Off

1.1 Safety Instructions



The **VOLKSLICHT** 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 of damages through any disregard of the information in this manual. Warranty claims will also be terminated in case the system casing is opened.

1. Make sure before putting the system into operation, that the fan and the air inlets are clean and not blocked by anything.
2. It must be assured that the system-head can rotate unhindered throughout his complete rotating range. A safety distance of at least 0.5 m to any easily inflammable material (e.g. decoration material) must be adhered.
3. **Attention!** Don't touch the device during the operation. This can cause injuries or damages.
4. **The system doesn't contain any maintainable parts. Don't open it!**
5. It is necessary to wait at least 15 minutes after disconnecting the AC before changing the optical carrier. Pay attention to possibly hot parts of the system.
-- Danger of BURNING --
6. **Never look directly into the beam of light or into one of the LEDs.**

LED Class 2M. You'll risk a serious injury of your eyes and in particular of your retina.



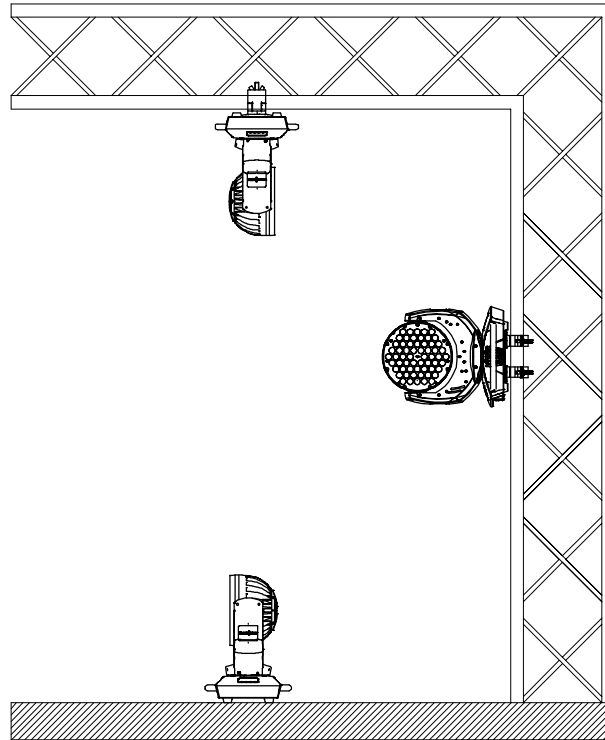
Attention: LED Class 2M can cause injuries of your eyes even without optical instruments in front of them or within a distance of less than 0.5m and short exposure time.
Hence: Avoid direct radiation of your eyes!

7. To allow a secure operation, follow also the Installation guide described in chapter 2. Operating the **VOLKSLICHT** without suitable safety aids like Safety cables or clamps/hooks can increase the risk of an accident.
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 spare parts. Any structural modification on the system will terminate all warranty claims.
10. Please keep this instruction manual for later reference.

2 Preparation and Installation

2.1 Mounting

The **VOLKSLICHT** is fully operational whether it hangs or is mounted to the wall. It can also be operated while standing on the floor. Keep a safety distance of 0.5 m towards any 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.**

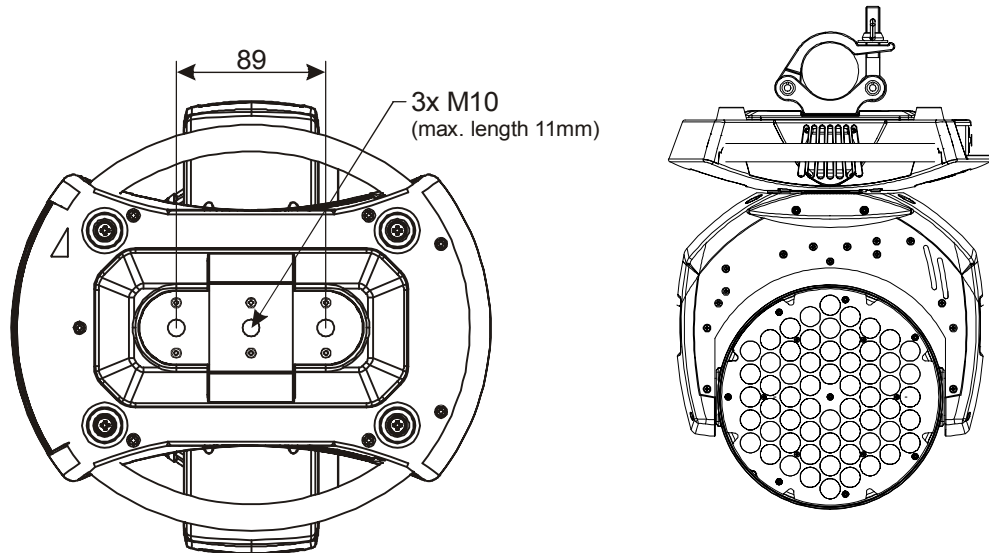
For the various mounting positions of the **VOLKSLICHT** (standing on the floor, sideways or hanging) different accessories kits are available. Through this a safe and firm installation is assured. You'll find special connectors on the bottom side of the system which are put to use here.

2.1.1 Mounting on the Floor (Upright)

The **VOLKSLICHT** is equipped with four robust rubber feet. This allows a firm and safe stand on even surfaces.

2.1.2 Mounting in hanging Position (Head first)

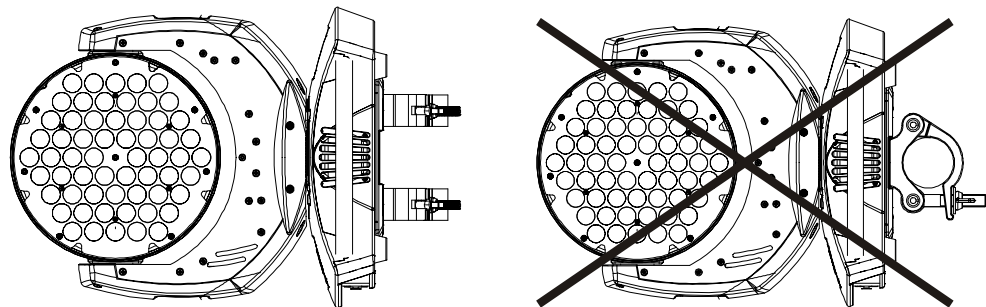
To operate the **VOLKSLICHT** in an hanging position, please use a half-coupler (clamp) which is mounted directly onto the bottom side of the system. It is fixed centrally with a M10 thread bolt (max. length 11 mm).



2.1.3 Mounting in sidewise Position

To operate the **VOLKSLICHT** in an sidewise position, please use **two** half-couplers (clamps) which are mounted directly onto the bottom side of the system. They are fixed with two M10 thread bolts (max. length 11 mm).

This technique is necessary to cope with the torque which accrues in this mounting position. In addition it allows a concentrically position between two truss belts. Never use the "Mounting in hanging Position" technique described above to fasten the system in the sidewise position. A safe and sound installation can not be assured in this way. This also can damage the system base.



2.2 *Secure the Device*

Regardless of the mounting method of the **VOLKSLICHT** you'll have to use a stipulated safety wire. Therefore you have to pull the safety wire through to two provided holes on the bottom side of the system and connect it with the truss-support. Pay attention to a safe and proper fastening. Install a safety wire that can hold at least 10 times the weight of the fixture. Never use the carrying handles for this purpose.

The safety wire must be attached in a way that the height of drop is minimised. A height of drop of more than 0.2m is strictly forbidden (→ BGI 810-3).

2.3 *Connections*

2.3.1 *Power Supply*

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

Connected load 140 VA (W) \Leftrightarrow T2A (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.

2.3.2 *DMX*

USITT DMX-512 Standard input/output in 3 pole connectors.

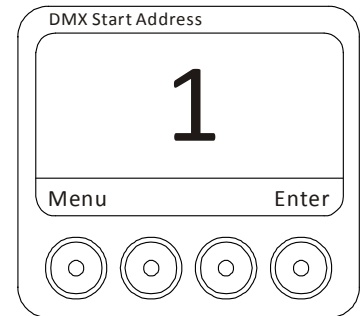
3 pole: Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+]

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

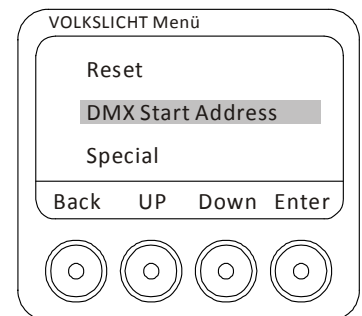
3 The Menu Field

You'll find the illuminated control board on the upper side of the base. It allows you to make all necessary adjustments of the system.

The current DMX address will be shown on the top level of the menu. Use the **Enter**-key to adjust the DMX address or press the **Menu**-key to reach the next level of the menu where other settings can be made.



With the **Enter**-key you reach 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. Adjust them and set functions **ON/OFF** with the **Up/Down**-keys. Confirm and save it with the **Enter**-key (the display shows **OK**). Use the **Back**-key to cancel the entry and to go back to the main menu.



← BACK - ENTER →

← DOWN - UP →

| Level1 | Level 2 | Level 3 | Level 4 | Remark |
|-------------------|-------------|-------------|---------|---|
| DMX Start Address | | | | Define the DMX start address |
| Special | Manual DMX | | | Manual control of all system functions |
| | | Pan | | Manual control for Pan (X-movement) |
| | | Tilt | | Manual control for Tilt (Y-movement) |
| | | Speed | | Speed adjustment for Pan/Tilt movements → see also item below |
| | | P/T | | Manual control for Pan/Tilt movement |
| | | Color Wheel | | Manual control for the color wheel |
| | | Red | | Manual control for red |
| | | Green | | Manual control for green |
| | | Blue | | Manual control for blue |
| | | Special | | Manual control for special |
| | | Dimmer | | Manual control for the dimmer |
| | | Shutter | | Manual control for the shutter |
| | Contrast | | | Adjustment for the Display contrast |
| | Default Set | | | Resetting all functions to original values |
| | Versions | | | Reads out the current LED dimmer (software) version |

← DOWN - UP →

| | |
|------------------------------|--------------------------|
| Adjust | Key code xxxx |
| | Diagnose |
| | Pan Offset |
| | Tilt Offset |
| | Clear EEPROM |
| Temperatures | |
| Testmode | |
| DMX Hold | |
| Position Feedback | |
| Adjust White | |
| | Red |
| | Green |
| | Blue |
| DMX Monitor | |
| | Pan |
| | Tilt |
| | Speed |
| | P/T |
| | Color Wheel |
| | Red |
| | Green |
| | Blue |
| | Special |
| | Dimmer |
| | Shutter |

| | |
|---------------------|-----------------|
| Live time | |
| Display | |
| | Blackout |
| Reverse Pan | |
| Reverse Tilt | |
| Reset | |

| |
|--|
| Use the code for entering the calibration menu (for authorized persons only) |
| Diagnose functions |
| Calibration for Pan-Offset |
| Calibration for Tilt-Offset |
| Erase EEPROM memory |
| Indicates the head and base temperature |
| Performs an automatic self-test |
| Defines whether the last DMX signal is stored or the lamp is switched OFF in case of signal interruption |
| Automatically position feedback (correction) for Pan/Tilt movement. ON/OFF |
| Adjustments for a uniform white color (white balance); only in white-mode |
| Input for red adjustments |
| Input for blue adjustments |
| Input for green adjustments |
| Indicates the presently received DMX signal per DMX channel |
| Instantaneous value for Pan |
| Instantaneous value for Tilt |
| Instantaneous value for Speed |
| Instantaneous value for Pan/Tilt movements |
| Instantaneous value for Colors |
| Instantaneous value for Red |
| Instantaneous value for Green |
| Instantaneous value for Blue |
| Instantaneous value for Special |
| Instantaneous value for the Dimmer |
| Instantaneous value for the Shutter |
| Indicates the overall operation time of the system |
| Adjust the display |
| ON/OFF: Display OFF |
| ON/OFF: Invert Pan movements |
| ON/OFF: Invert Tilt movements |
| RESET and new calibration for all functions |

^{*)} Maximum light output is only achieved at values of DMX=255 for all three channels.

4 DMX Channel Selection (DMX Protocol)

| Channel | Function | Time and Value | DMX | HEX | % | |
|-----------------------------------|---|-------------------------|-----------------|---------------|----------------|----------|
| 1) PAN-coarse | 0 .. 660° | | 0..255 | 00..FF | 0..100 | |
| 2) PAN-fine | High- Pos ... High- Pos + 2,6° (16 Bit) | | 0..255 | 00..FF | 0..100 | |
| 3) Tilt-coarse | 0 .. 300° | | 0..255 | 00..FF | 0..100 | |
| 4) Tilt-fine | High- Pos ... High- Pos + 1,2° (16 Bit) | | 0..255 | 00..FF | 0..100 | |
| 5) Color (fixed) | Colors adjustable via RGB | | 0..7 | 00..07 | 0..2,5 | |
| | Color 01 - Red ¹⁾ | | 8..15 | 08..0F | 3..5,5 | |
| | Color 02 - Amber ¹⁾ | | 16..23 | 10..17 | 6..8,5 | |
| | Color 03 - Warm Yellow ¹⁾ | | 24..31 | 18..1F | 9..12,5 | |
| | Color 04 - Yellow ¹⁾ | | 32..39 | 20..27 | 13..15,5 | |
| | Color 05 - Green ¹⁾ | | 40..47 | 28..2F | 16..18,5 | |
| | Color 06 - Turquoise ¹⁾ | | 48..55 | 30..37 | 19..21,5 | |
| | Color 07 - Cyan ¹⁾ | | 56..63 | 38..3F | 22..24,5 | |
| | Color 08 - Blue ¹⁾ | | 64..71 | 40..47 | 25..27,5 | |
| | Color 09 - Lavender ¹⁾ | | 72..79 | 48..4F | 28..30,5 | |
| | Color 10 - Mauve ¹⁾ | | 80..87 | 50..57 | 31..34,5 | |
| | Color 11 - Magenta ¹⁾ | | 88..95 | 58..5F | 35..37,5 | |
| | Color 12 - Pink ¹⁾ | | 96..103 | 60..67 | 38..40,5 | |
| | White - CTO | Color temperature 3200K | | 104..111 | 68..6F | 41..43,5 |
| | White | Color temperature 5600K | | 112..119 | 70..77 | 44..46,5 |
| White - CTB | Color temperature 7200K | | 120..127 | 78..7F | 47..49,5 | |
| Rainbow Effect Stop ²⁾ | | | 128 | 80 | 50 | |
| Rainbow Effect ³⁾ | slow - fast | | 129..223 | 81..DF | 51..88 | |
| Rainbow Effect, random colors | slow - fast | | 224..255 | E0..FF | 89..100 | |
| 6) Red | Color mixing system - Red | 0 - 100% | 0..255 | 00..FF | 0..100 | |
| 7) Green | Color mixing system - Green | 0 - 100% | 0..255 | 00..FF | 0..100 | |
| 8) Blue | Color mixing system - Blue | 0 - 100% | 0..255 | 00..FF | 0..100 | |
| 9) Shutter | Shutter closed | | 0..15 | 00..0F | 0..5,5 | |
| | Random Pulse effect | slow - fast | 16..47 | 10..2F | 6..18,5 | |
| | Up-dimming then Shutter closing (random patterns) | slow - fast | 48..79 | 30..4F | 19..31 | |
| | Shutter open then down-dimming (random patterns) | slow - fast | 80..111 | 50..6F | 32..43 | |
| | Up-dimming then down-dimming (random patterns) | slow - fast | 112..143 | 70..8F | 44..56 | |
| | Strobe effect pause | 5s .. 1s | | 144..199 | A0..C7 | 57..77 |
| | Strobe effect, slow - fast | 1 Hz .. 10 Hz | | 200..239 | C8..EF | 78..94 |
| | Strobe effect | 25 Hz | | 240 | F0 | 94,4 |
| | Shutter open | | | 242..255 | F3..FF | 95..100 |
| 10) Dimmer | Dimmer | 0 - 100% | 0..255 | 0..FF | 0..100 | |
| 11) Special | RESET | | 250..255 | FA..FF | 98..100 | |
| 12) Move-ment | No movement | | 0 | 0 | 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 | |

| Channel | Function | Time and Value | DMX | HEX | % | |
|------------------|--|---------------------------|---|----------|---------|--------|
| | PAN | 2 | 0° | 08..09 | 08..09 | 3,3 |
| | | 2 | 90° | 10..11 | 0A..0B | 4,1 |
| | | 2 | 180° | 12..13 | 0C..0D | 4,9 |
| | | 2 | 270° | 14..15 | 0E..0F | 5,7 |
| | PAN | 3 | 0° | 16..17 | 11..11 | 6,5 |
| | | 3 | 90° | 18..19 | 12..13 | 7,3 |
| | | 3 | 180° | 20..21 | 14..15 | 8,0 |
| | | 3 | 270° | 22..23 | 16..17 | 8,8 |
| | PAN | 4 | 0° | 24..25 | 18..19 | 9,6 |
| | | 4 | 90° | 26..27 | 1A..1B | 10,4 |
| | | 4 | 180° | 28..29 | 1C..1D | 11,2 |
| | | 4 | 270° | 30..31 | 1E..1F | 12 |
| | TILT | size / phase see also PAN | | 32..63 | 20..3F | 13..25 |
| | PAN / TILT | size / phase see also PAN | | 64..95 | 40..5F | 26..37 |
| | PAN / TILT (inverse) | size / phase see also PAN | | 96..127 | 60..7F | 38..50 |
| | Circle | size / phase see also PAN | | 128..159 | 80..9F | 51..62 |
| Circle (inverse) | size / phase see also PAN | | 160..191 | A0..BF | 63..75 | |
| Lying eight | size / phase see also PAN | | 192..223 | C0..DF | 76..87 | |
| Random movement | size see also PAN | | 224..255 | E0..FF | 88..100 | |
| 13) Speed | Pan/Tilt relative movement | | 0..15 | 00..0F | 0..6 | |
| Pan/Tilt | Pan/Tilt slow – fast Use this channel also for the SPEED of the movements | | Pan Min. 660° = 200s Tilt Min. 300° = 110s | 16..255 | 10..FF | 7..100 |

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 **Volksichts** will afterwards start from that color and will execute the rainbow effect synchronously. Different **Volkslichts** can certainly have different start-colors but will still execute the rainbow effect synchronously. If you choose a color different from the once marked with ¹⁾ in the tables above the rainbow start-color will be red.

²⁾ Rainbow-effect Stop will pause this function. After resuming the rainbow-effect will be continued with the current color.

³⁾ The Rainbow-effect will run synchronously only if it will be started going out from one of the predefined colors (see also ¹⁾ before).

5 Maintaining and Cleaning the VOLKSLICHT

The **VOLKSLICHT** is a system of very low maintenance. It is only necessary to clean the air in- and outlets as well as the optical LED lenses from time to time. For a safe operation 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 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 main plug!**
- Wait min. 15 minutes after the last operation to cool down the fixture.

5.2 Circumference 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 practice 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. |

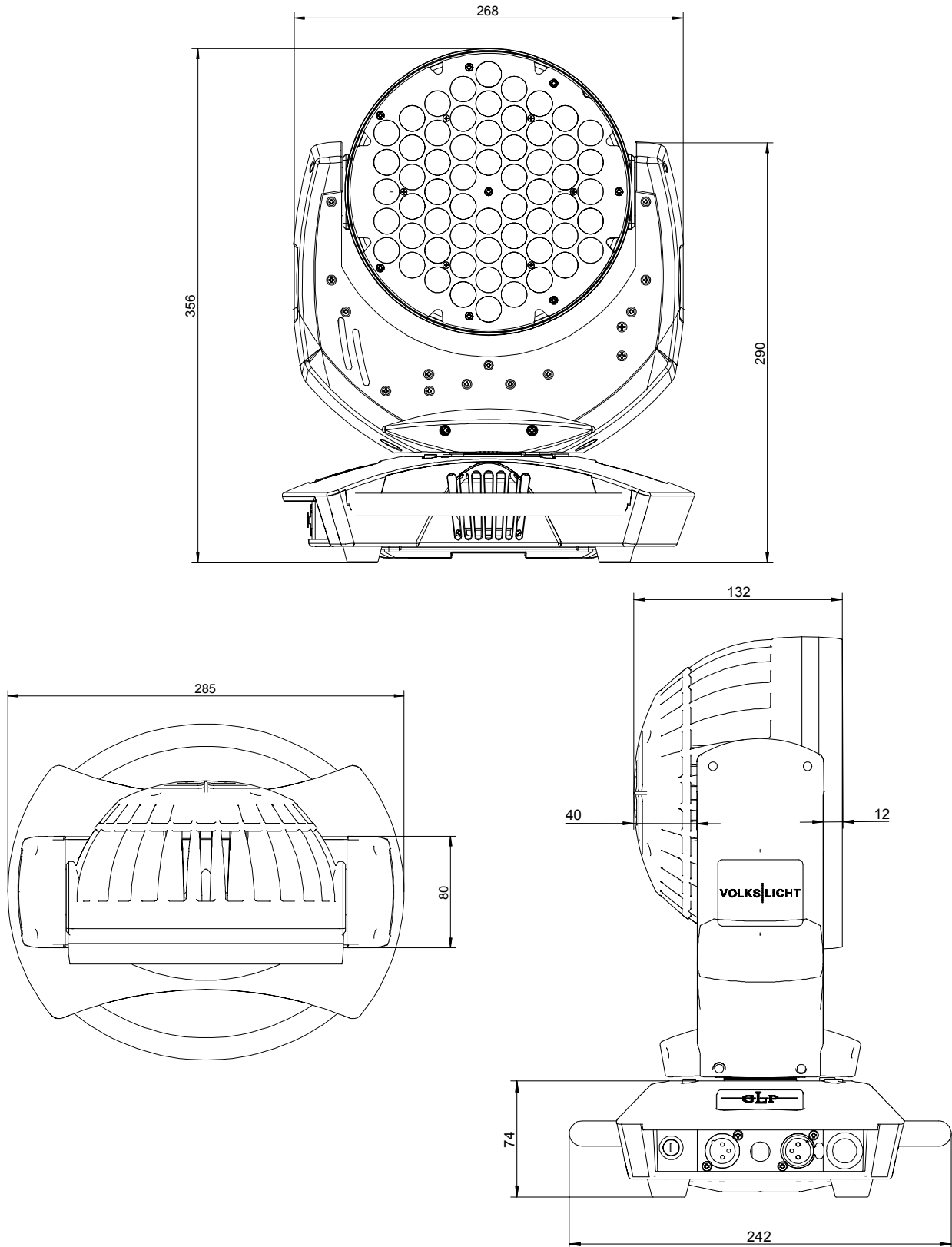
Attention:

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

6 Technical Specifications

| | |
|---|---|
| Power supply | |
| Power consumption | 140 VA (Watt) |
| Power Input | ~100-240 V AC, 50-60 Hz (wide range input) |
| Fuse protection | Micro-fuse 5x20 mm, T2A |
| Operational Parameters | |
| Max. Ambient Temperature | 45°C (integrated overheating switch) |
| Mounting Position | Any (see chapter mounting) |
| Lighting System - Additive Color mixing | |
| LED Type | 60x Luxeon Rebel High-power- LEDs |
| Lifetime | 100.000 h |
| 21x LEDs blue, 21x LEDs green und 18x LEDs red Wavelength optimized for maximum presentable color space | |
| Optical System | |
| High efficient Collimator cluster | |
| Exchangeable optical carrier with 11° light distribution angle (24° optional) | |
| Scattering light aperture | |
| Shutter / Dimmer (8 Bit) | |
| Strobe- Effect with variable speed between 1 - 10 flashes per second, Random-Strobe, Pulse-Effects | |
| Continuous Dimmer 0 - 100% | |
| DMX Control | |
| Standard USITT DMX-512, 3 pole XLR; [+] = Pin 3 [-] = Pin 2 [Ground] = Pin 1. Die DMX- Addressing starts at the DMX channel [001]. | |
| Pan/Tilt (8/16 Bit) | |
| Pan- movement | 660° in min. 3 seconds (Position Feedback) |
| Tilt- movement | 300° in min. 3 seconds (Position Feedback) |
| Weights and Measures | |
| Width of the base | 285 mm |
| Length of the base | 242 mm |
| height (head vertical) | 356 mm |
| Weight (net) | 7,8 kg |

7 System dimensions (in mm)



8 Index

B

| | |
|------------------------|---|
| BGI 810-3 | 8 |
| BGV C1 | 6 |

C

| | |
|---------------------|----|
| Circumference | 13 |
| Cleaning | 13 |

D

| | |
|--------------------------------|----|
| Danger of BURNING | 5 |
| Description of Device | 4 |
| DIN VDE 0711-217 | 6 |
| DMX | 8 |
| DMX Protocol | 11 |

E

| | |
|------------------------|---|
| e-mail | 1 |
| Enter-key | 9 |

I

| | |
|---------------------------|---|
| Instruction Version | 1 |
| Internet | 1 |

L

| | |
|---------------------------|---|
| LED Class 2M | 5 |
|---------------------------|---|

M

| | |
|-----------------------|----|
| Maintenance | 13 |
| Menu Field | 9 |
| Micro-fuse | 8 |
| Mode-key | 9 |
| Mounting | 6 |

| | |
|-------------------------------------|---|
| Mounting in hanging Position | 7 |
| Mounting in sidewise Position | 7 |
| Mounting on the Floor | 6 |

O

| | |
|----------------------------|----|
| Optical parts | 13 |
|----------------------------|----|

P

| | |
|---------------------------|----|
| Pan- Movement | 14 |
| Power Supply | 8 |

S

| | |
|--------------------------------|---|
| Safety distance | 6 |
| Safety Instructions | 5 |
| Secure the Device | 8 |
| Software Version | 1 |

T

| | |
|---------------------------------------|----|
| Technical Specifications | 14 |
| Tilt- Movement | 14 |

U

| | |
|---------------------------|---|
| Up/Down-keys | 9 |
|---------------------------|---|

V

| | |
|--------------|---|
| VBG 70 | 6 |
|--------------|---|

W

| | |
|----------------------------|----|
| Warranty claims | 5 |
| Weights and Measures | 14 |

