Instruction Manual

RGB Static

impression

from software version 1.00/30
(Instruction version 1.00)

GLP
GERMAN LIGHT
PRODUCTS
since 1994

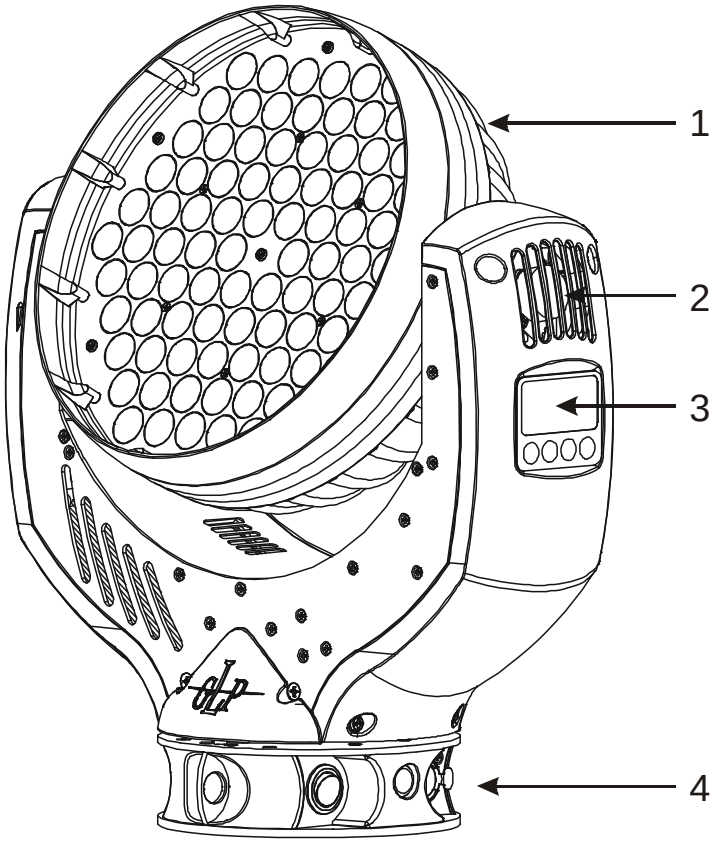
e-mail: service@glp.de
Internet: http://www.glp.de

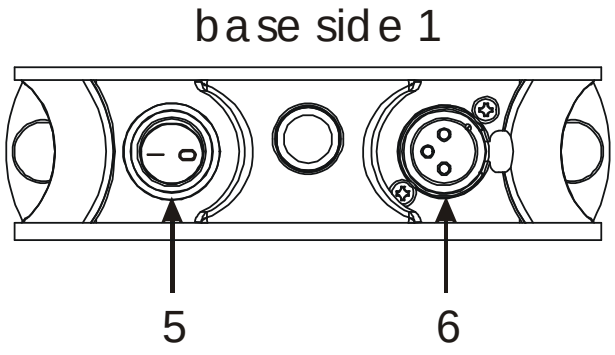
Notes:

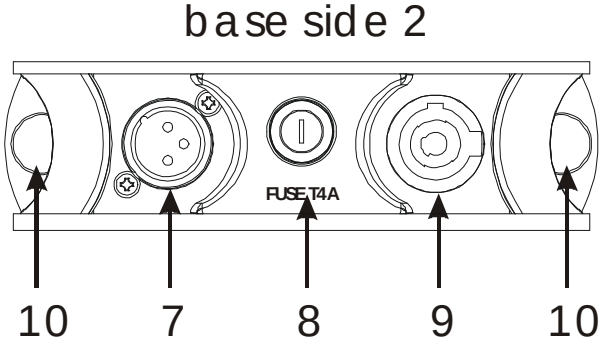
Table of content

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. Power On/Off
6. DMX- Output (3 pole)
7. DMX- Input (3 pole)
8. Micro-fuse 5x20mm, T4A
9. Mains supply (Powercon)
10. 2x Safety eyes

1.1 Safety Instructions

The **IMPRESSION** 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 also will be cancelled 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 one of the LEDs.** Never use optical apertures with a distance less than 0.5 m to observe the beam of light. **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.

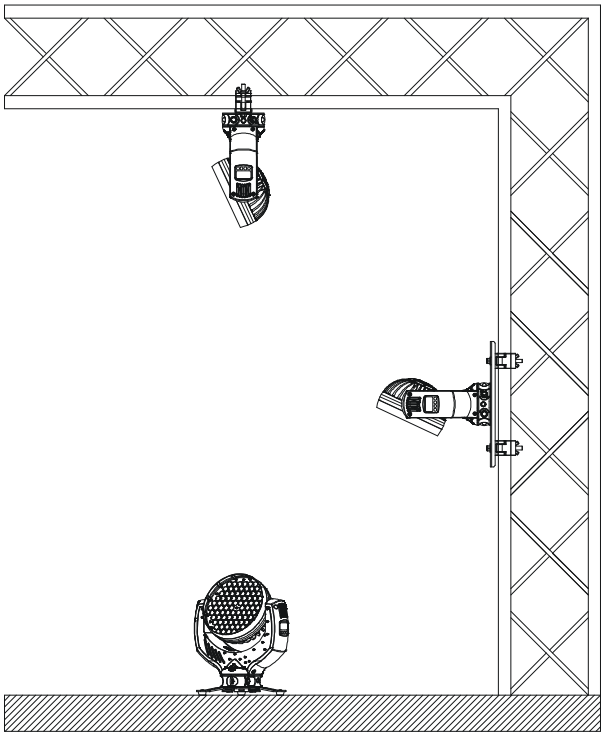
Hence: Avoid direct radiation of your eyes!

7. To allow a secure operation, follow also the Installation guide described in chapter 2. Operating the **IMPRESSION** 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 explicit mentioned in this manual.
9. Use only original spare parts. Any structural modification on the system will terminate all warranty claims.

2 Preparation and Installation

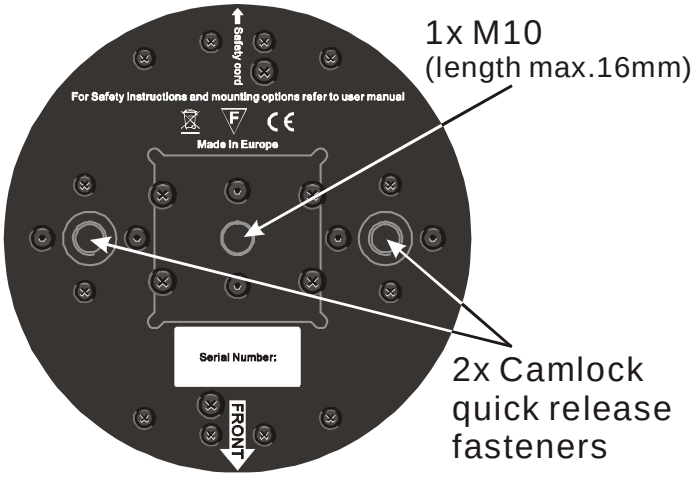
2.1 Mounting

The **IMPRESSION** 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.

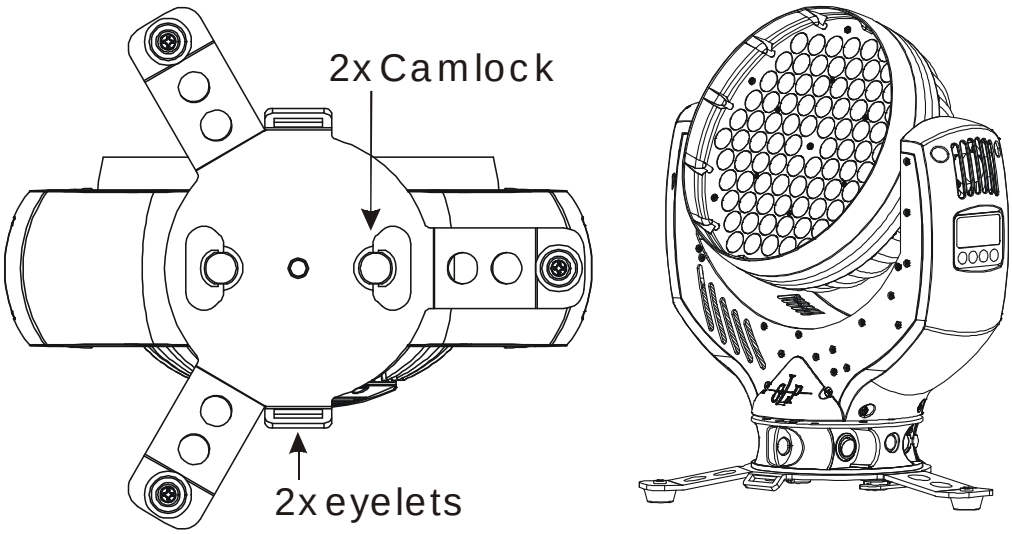
For the various mounting positions of the **IMPRESSION** (standing on the floor, sideways or hanging) different accessories kits are available. Through this a safe and firm installation is assured. You'll find special connectors on the bottom side of the system which are put to use here. In addition the front side of the system is marked with (FRONT) as this is important for a even orientation during installation.



front side of the fixture

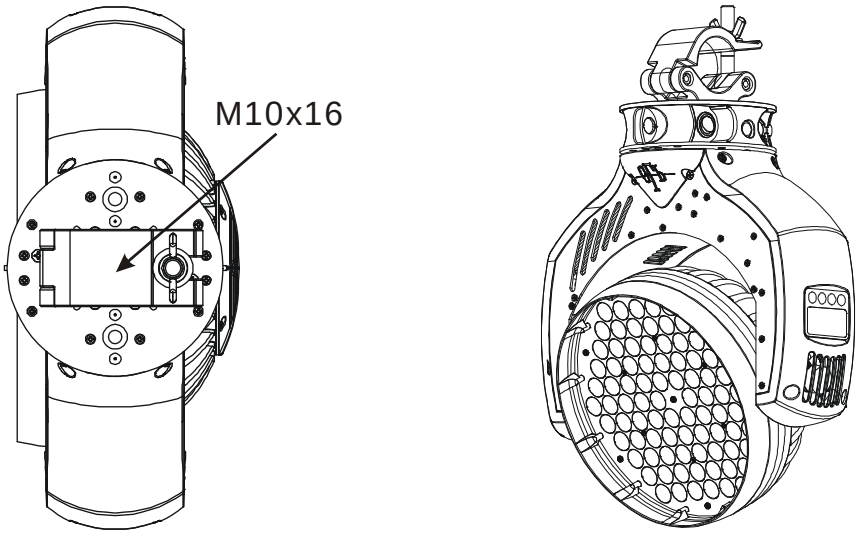
2.1.1 Mounting on the Floor (Upright)

To operate the **IMPRESSION** in an upright position, please use the dedicated tripod which is mounted to the bottom side of the system. It is fixed with fasteners called Camlock quick-release connectors. Turn the two fasteners both 90° to lock them. Do the opposite to release them again. On both sides you'll find eyelets to pull though a fixing strap. This allows an additional bracing of the system during the upright operation.



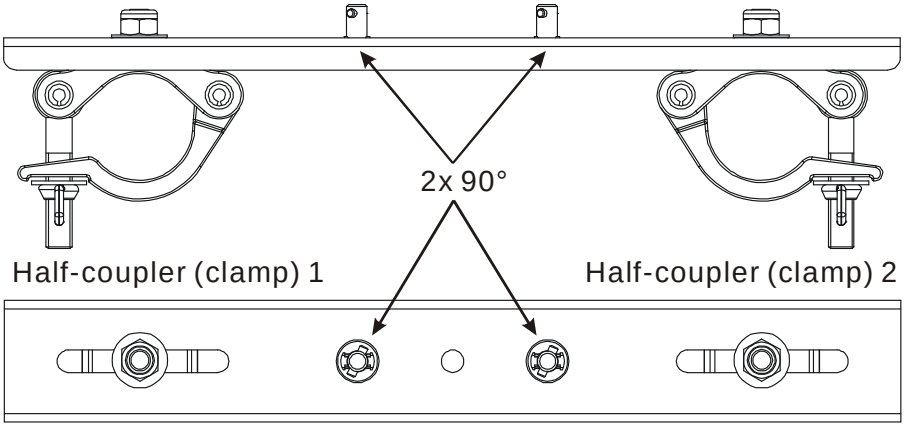
2.1.2 Mounting in hanging Position (Head first)

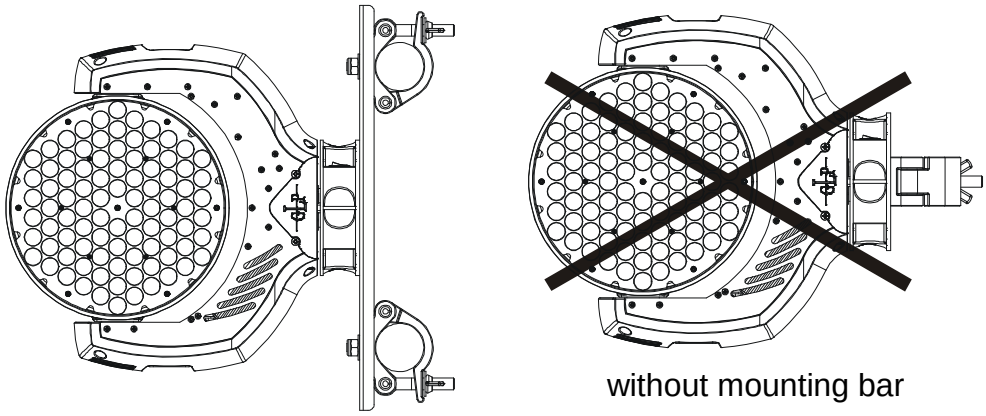
To operate the **IMPRESSION** in an hanging position, please use a half-coupler (clamp) which is mounted directly to the bottom side of the system. It is fixed centrically with a M10x16 mm thread bolt.



2.1.3 Mounting in sidewise Position

To operate the **IMPRESSION** in a sidewise position, please use an addition mounting bar. Also this is fixed by two Camlock quick-release connectors. Two half-couplers (clamps) are now used to mount the system 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 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 can also damage the system base.





without mounting bar

2.2 Secure the Device

Regardless of the mounting method of the **IMPRESSION** 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.

2.3 Connections

2.3.1 Power Supply

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

Connected load 350 VA (W) <=> 4 AT (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

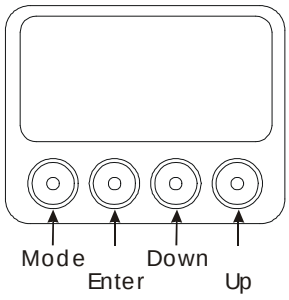
USITT DMX-512 Standard input/output in 3 pole connectors.

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 control board on the side part of the arm. It allows you to make all necessary adjustments of the **IMPRESSION.** 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.



← MODE - ENTER →

← DOWN - UP →

Level1	Level 2	Level 3	Level 4	Remark
DMX Start Address 001				Define the DMX start address
Special	**Manual DMX**			Manual control of all system functions
		Special		Activate the White- or Full-Power Mode; see also DMX table
		White Temperature		Abgleich der Farbtemperatur der Farbe WEIß
		Dimmer		Manual control for Dimmer
		Shutter		Manual control for Shutter
		Blue		Manual control for blue
		Green		Manual control for green
		Red		Manual control for red
		Color Wheel		Manual control for the color wheel
	Display Contrast			Adjustment for the Display contrast
	Default Set			Resetting all functions to original values
	Set Dimmer Frequency			Changes PMW frequency between 600Hz and 1200Hz
	LED Dimmer Version			Reads out the current LED dimmer (software) version
	Impression Version			Reads out the current CPU software version
	Adjust	**Key code xxxx**		Use the code for entering the calibration menu (for authorized persons only)
		Clear EEPROM		Erase EEPROM memory
		Diagnose		Diagnose functions
			Anz Ti0-Int-Err	Internal data and function diagnose
			PFC Voltage	Show the present PFC voltage
	Temperature Arm			Indicates the arm temperature
	Temperature Head			Indicates the head temperature
	DMX Hold			Defines whether the last DMX signal is stored or the lamp is switched OFF in case of signal interruption

	White Adjust		Adjustments for a uniform white color (white balance); only in white-mode
		Red	Input for red adjustments
		Blue	Input for blue adjustments
		Green	Input for green adjustments
	Set DMX Image		Stores the Scene currently sent to the unit
	DMX input Monitor		Indicates the presently received DMX signal per DMX channel
		Special	Instantaneous value for Special
		White Temperature	Adjustment of the color temperature for WHITE
		Dimmer	Instantaneous value for Dimmer
		Shutter	Instantaneous value for Shutter
		Blue	Instantaneous value for Blue
		Green	Instantaneous value for Green
		Red	Instantaneous value for Red
		Color Wheel	Instantaneous value for Color Mixing unit
	Self test		Performs an automatic self-test
	Live time		Indicates the overall operation time of the system
	Display		Adjust the display
		Blackout	ON/OFF: Display OFF
↓ DOWN - UP ↑	**Select DMX Mode**		Please select the desired DMX Mode
		Compressed	Only 8 DMX channels are being used if this Mode is activated
		Normal	6 DMX channels are being used if this Mode is activated
		High-Resolution	9 DMX channels are being used if this Mode is activated. Dimmer operates at 16 bit.
	White Mode		ON/OFF: Adjustments for white-balance are activated
	Reset		RESET and new calibration for all functions

4 DMX Channel Selection (DMX Protocol)

Normal-Mode 8 DMX channels

Channel	Function	Time and Value	DMX	HEX	%
1) 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	E=..FF	89..100
2) Red	Color mixing system - Red	0 - 100%	0..255	00..FF	0..100
3) Green	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100
4) Blue	Color mixing system - Blue	0 - 100%	0..255	00..FF	0..100
5) 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 to 1s	144..199	A0..C7	57..77
	Strobe effect, slow - fast	1 Hz .. 10 Hz	200..239	C8..EF	78..94
	Shutter open		240..255	F0..FF	95..100
6) Dimmer	Dimmer	0% - 100%	0..255	0..FF	0..100
7) Color temperature	No color temperature correction		0..6	0..06	0..2
	Continuous color temperature correction between 3200k - 7200k	Applicable only for White color [5)]	7..255	07..FF	3..100
8) Special	Max. Power-Mode [4)]	Max. light output without white balance	0..15	0..0F	0..5,5
	White-Mode [4)]	White balance used	16..31	10..1F	6..12,5
	Fan min. as long as temp. < 90℃		224..229	E0..E5	88..89,5
	RESET (Normal Mode)		**250..255**	**FA..FF**	**98..100**

[4] Max. Power-Mode vs. White-Mode

The **IMPRESSION** can regard the white-balance adjustments for each individual color setting. Whether the White-Mode is used with RGB can be selected in the **Normal DMX-Mode** during operation with the Special DMX channel. If the Special channel is set to a value between DMX 0..15, the White-Mode is not used and the RGB goes for the maximum light output. If the Special channel is set to a value between DMX 16..31, the white balance is used for the RGB output.
Since there is no Special DMX channel in the **Compress DMX-Mode**, the possibility exists to likewise select these settings also in the display menu. Is the White-Mode set to "ON", the white-balance is activated. If the White-Mode is set to "OFF", the RGB goes for the maximum light output (Max. Power-Mode).

[5] The continuous color temperature correction is applicable only for the White color i.e. if this function is selected (DMX ≥ 001) the **Impression** will change the color to white immediately and will then be adjustable in the color temperature in a range between 3200K and 7200K. Hence a color correction for others than white is not intended.

Compress-Mode 6 DMX channels

Channel	Function	Time and Value	DMX	HEX	%
1) 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
2) Red	Color mixing system - Red	0 - 100%	0..255	00..FF	0..100
3) Green	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100
4) Blue	Color mixing system - Blue	0 - 100%	0..255	00..FF	0..100
5) 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..31,5
	Shutter open then down-dimming (random patterns)	slow - fast	80..111	50..6F	32..43

Channel	Function	Time and Value	DMX	HEX	%
	Up-dimming then down-dimming (random patterns)	slow - fast	112..143	70..8F	44..56
	Strobe effect pause	5s to 1s	144..199	A0..C7	57..77
	Strobe effect, slow - fast	1 Hz .. 10 Hz	200..239	C8..EF	78..94
	Shutter open		240...249	F0..F9	95..97,5
	RESET	**Min. 3 Sec.**	**250**	**FA**	**98**
	Shutter open		251..255	FB..FF	99..100
6) Dimmer	Dimmer (0% - 100%)		0..255	0..FF	0..100

High Resolution (Extended) -Mode 7 DMX Channels

Channel	Function	Time and Value	DMX	HEX	%
1) Red-coarse	Color mixing system – Red	0 - 100%	0..255	00..FF	0..100
2) Red-fine	Color mixing system – Red-Low		0..255	00..FF	0..100
3) Green-coarse	Color mixing system – Green	0 - 100%	0..255	00..FF	0..100
4) Green-fine	Color mixing system – Green-Low		0..255	00..FF	0..100
5) Blue-coarse	Color mixing system – Blue	0 - 100%	0..255	00..FF	0..100
6) Blue-fine	Color mixing system – Blue-Low		0..255	00..FF	0..100
7) 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..31,5
	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 to 1s	144..199	A0..C7	57..77
	Strobe effect, slow - fast	1 Hz .. 10 Hz	200..239	C8..EF	78..94
	Shutter open		240...249	F0..F9	95..97,5
	RESET	**Min. 3 Sec.**	**250**	**FA**	**98**
	Shutter open		251..255	FB..FF	99..100
8) Dimmer-coarse	Dimmer	0% - 100%	0..255	0..FF	0..100
9) Dimmer-fine	Dimmer - Low		0..255	0..FF	0..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 **Impressions** will afterwards start from that color and will execute the rainbow effect synchronously. Different **Impressions** 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).

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 features during switching-ON the system

a) 1200Hz Mode (Hold down the **UP- button** during power ON)
After switching ON the system the LEDs will be operated with a Pulse Width Modulation (PWM) of 1200Hz.
In addition all standard setting will be loaded (DMX start address [001], Normal Mode with 14 DMX channels).

b) 600Hz Mode (Hold down the **DOWN- button** during power ON)
After switching ON the system the LEDs will be operated with a Pulse Width Modulation (PWM) of 600Hz.
In addition all standard setting will be loaded (DMX start address [001], Normal Mode with 14 DMX channels).

c) Standard Mode (Hold down the **ENTER- button** during power ON)
After switching ON the system the DMX start address will be set to [001]. All other setting remain unchanged.

Additional Display Indications

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

XX/X/XX
- 06 = 600Hz / 12 = 1200Hz
- N = Normal Mode / C = Compressed Mode / H = High Res. Mode
- N = Tilt normal / I = Tilt inverted
- N = Pan normal / I = Pan inverted

4 Maintaining and Cleaning the IMPRESSION

The **IMPRESSION** 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!

4.1 Safety regulations

- **Pull out the main plug!**
- Wait min. 15 minutes after the last operation to cool down the fixture.

4.2 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 tough lenses with bare fingers.**

5 Technical Specifications

Power supply	
Power consumption	350 VA (Watt)
Power Input	~100-240 V AC, 50-60 Hz (wide range input)
Fuse protection	Micro-fuse 5x20 mm, T 4A
Operational Parameters	
Max. Ambient Temperature	45℃ (integrated overheating switch)
Mounting Position	Any (see chapter mounting)
Lighting System - Additive Color mixing	
LED Type	90x Luxeon K2 High-power- LEDs
Lifetime	50.000 h
30 LEDs per color, wavelength optimized for maximum presentable color space	
Optical System	
High efficient Collimator cluster	
Exchangeable optical carrier with 10° light distrib ution angle (25° 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].	
Weights and Measures	
Width of the base	**340 mm**
Length of the base	**145 mm**
height (head vertical)	**370 mm**
Weight (net)	**7 - 8 kg**

6 Index