Instruction Manual

WWC & CCW

impression

from software version 1.00/30
(Instruction version 1.04)

GLP

GERMAN LIGHT
PRODUCTS

—— since 1994 ——

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Preface

This manual serves for both systems the **IMPRESSION WWC** as well as the **IMPRESSION CCW.** The two systems differ from each other only by the number of cold- respectively warm- white LEDs.

WWC version: 30x LEDs cold white, 60x LEDs warm white

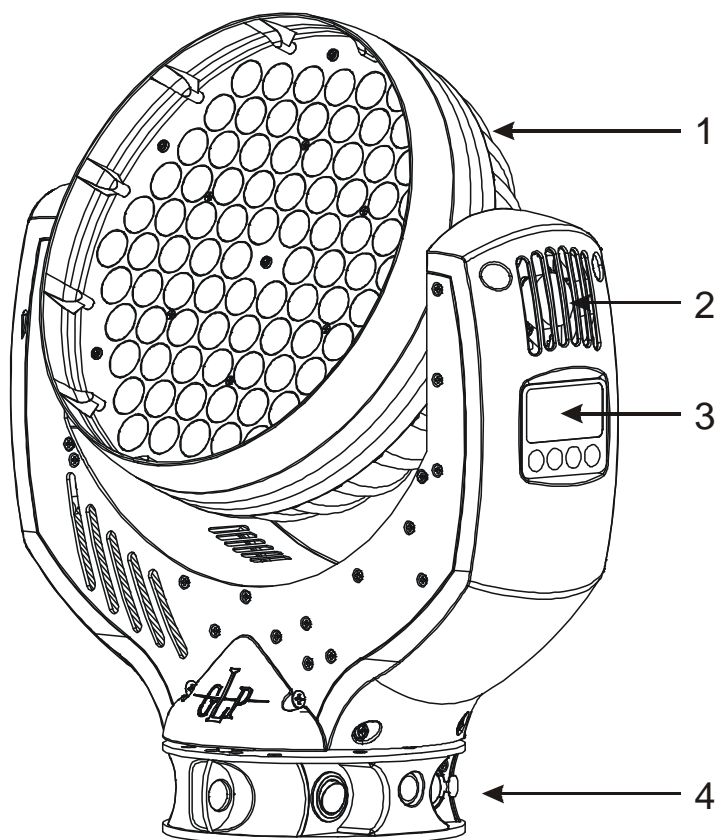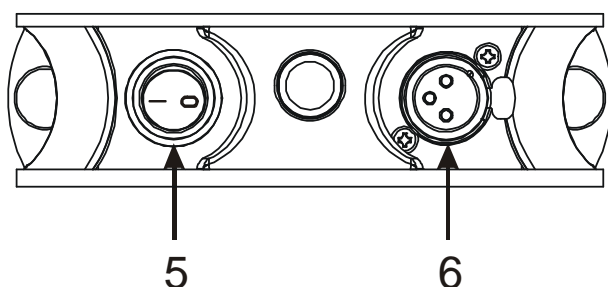**CCW version:** 60x LEDs cold white, 30x LEDs warm white

Notes:

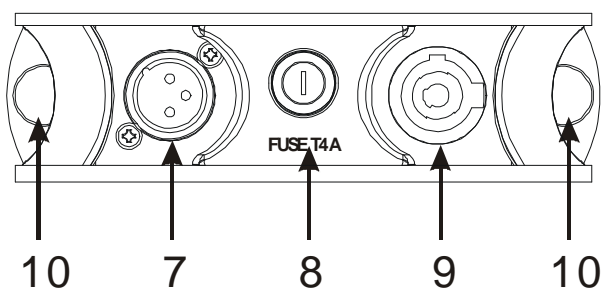# Table of content

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

base side 1

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

base side 2

FUSE T4A

1.1   Safety Instructions

> The **IMPRESSION** is an advanced technology product. To guarantee smooth operation, it is necessary to follow the following instructions.
>
> The manufacturer of this device will not take responsibility of damages through any disregard of the information in this user manual. Warranty claims will also be cancelled in the event of the system casing being opened.

1. Make sure that before powering up the fixture, the fans and air inlets are clean and not blocked by anything.

2. Before powering up the fixture, ensure that the moving head part of the fixture can rotate unhindered through its full range of movement.

3. A safety distance of at least 0.5 m to any easily flammable material (e.g. decoration material) must be adhered to.

4. **Attention!** Don't touch the device during operation. Parts of the fixture can become hot and can cause injuries and / or damages.

5. The system doesn't contain any user serviceable parts. Opening the fixture will void the manufacturers warranty.

6. Danger of burning. Wait at least 15 minutes after disconnecting the AC power before changing the optical carrier on the fixture. Pay attention to possible hot parts of the system.

7. **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.** Not following these precautions can result in serious injury to your eyes and in particular, 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.
>
> **Avoid direct radiation to your eyes!**

8. To ensure proper operation, you must also follow the installation guide described in chapter 2 of this manual. Operating the **IMPRESSION** without suitable mounting devices can increase the risk of an accident.

9. The **IMPRESSION** features a unique small and lightweight design with no specific carrying handles. Care needs to be shown when handling the fixture to ensure that no unnecessary damage should occur. Fragile areas include the LCD display and cover on one side arm and the front bezel.

Pressure in these areas could result in damages which will not be covered by the standard warranty.

10. Repair-, maintenance- and installation work should only be performed by qualified or GLP certified staff. You need to pay attention to the common rules of technology that are not explicit mentioned in this manual.

11. Use only original spare parts. Any structural modification on the system will terminate all warranty claims.

12. Please keep this instruction manual for future reference.

2 Preparation and Installation

2.1 Mounting

The **IMPRESSION** is fully operational whether it hangs or is mounted to a wall. It can also be operated while standing on the floor. Keep a safety distance of 0.5 m from any easily inflammable materials (decoration etc.).
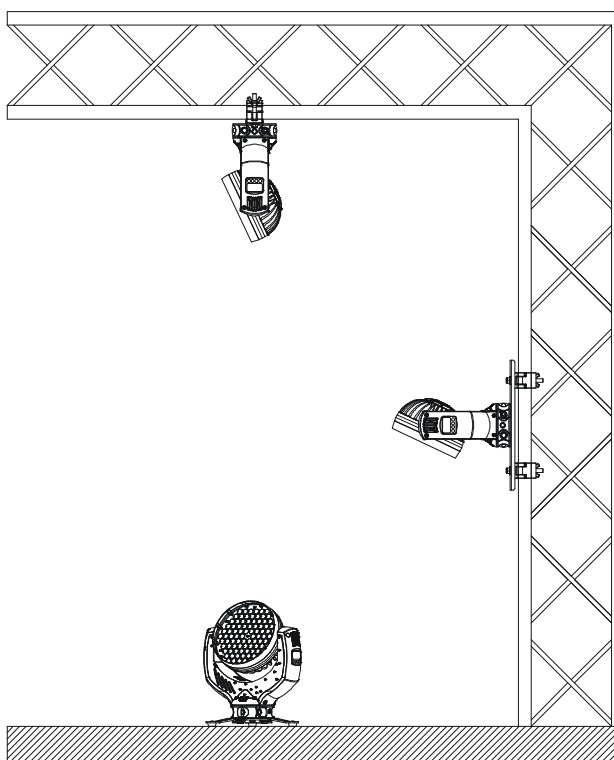
⚠	**Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217.** **The installation shall be done by qualified personal only.**

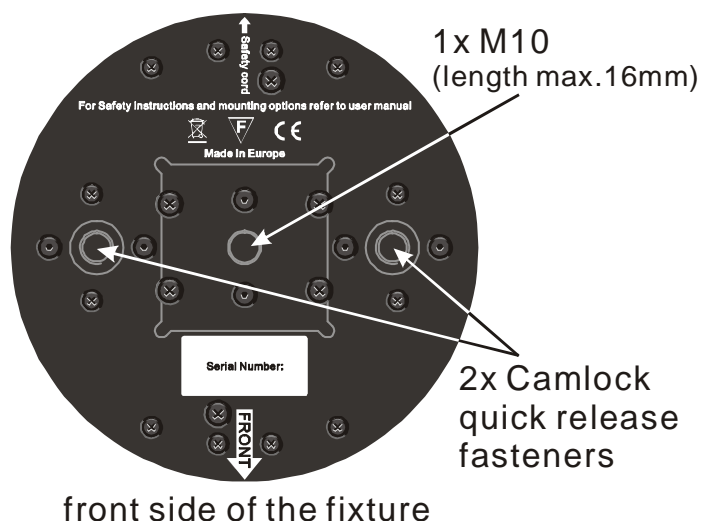For the various mounting positions of the **IMPRESSION** (standing on the floor, sideways or hanging) different accessories kits are available. Using any required kits, along with the standard mounting connectors on the base of the fixture, will ensure a safe and firm installation.

1x M10
(length max.16mm)

2x Camlock
quick release
fasteners

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 floor-stand which ships with all original fixtures. The floor stand is mounted to the base of the fixture using the two Camlock quarter turn fasteners. Line up and engage the camlock connectors from the floor stand into the base of the fixture and turn the two fasteners 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 additional bracing of the floor-stand during the upright operation.

2x Camlock

2x eyelets
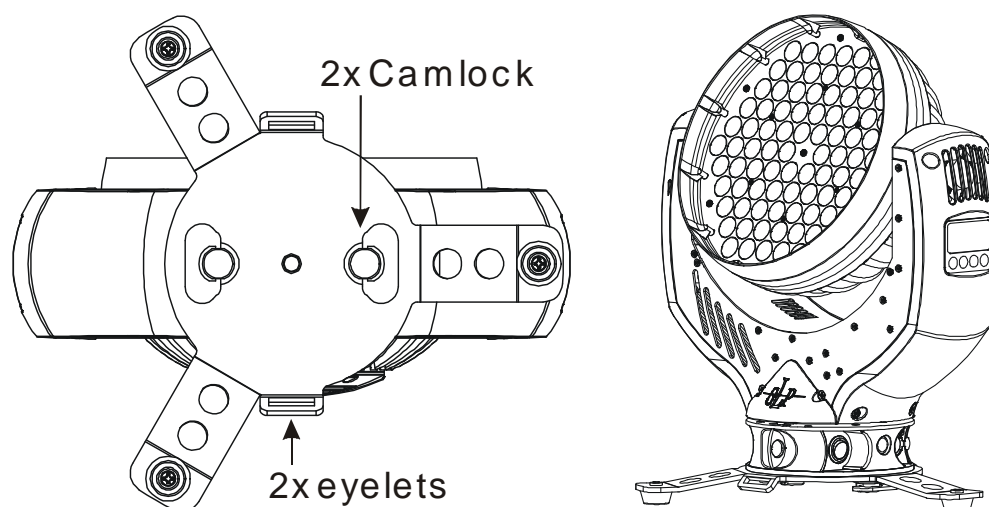
2.1.2 Mounting in hanging position (Head down)

To operate the **IMPRESSION** in a hanging position, a half-coupler or similar clamp can be mounted directly to the bottom of the base using the M10x16 mm threaded socket.

M10x16
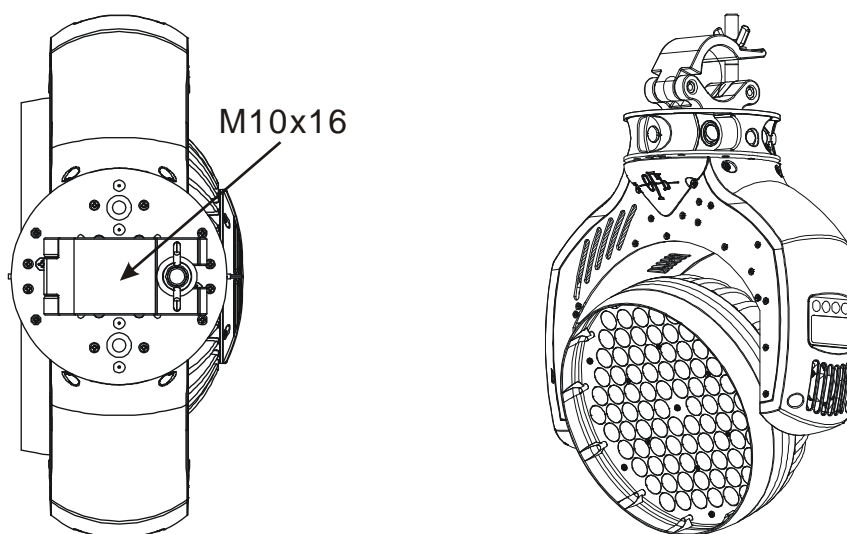
2.1.3 Mounting in a sideway position

To operate the **IMPRESSION** in a sideways position, please use an additional mounting bar, available from GLP or one of their agents.. This mounting bar is fixed via the two camlock quick-release connectors. Two half-couplers or clamps are then used to hang the mounting bar. This technique is necessary to cope with the additional torque in this mounting position. Never use the "Mounting in hanging position" technique described above to secure the fixture in a sideway position, as the fixtures base can become damaged, and a secure installation cannot be assured.

2x 90°

Half-coupler (clamp) 1   Half-coupler (clamp) 2

without mounting bar
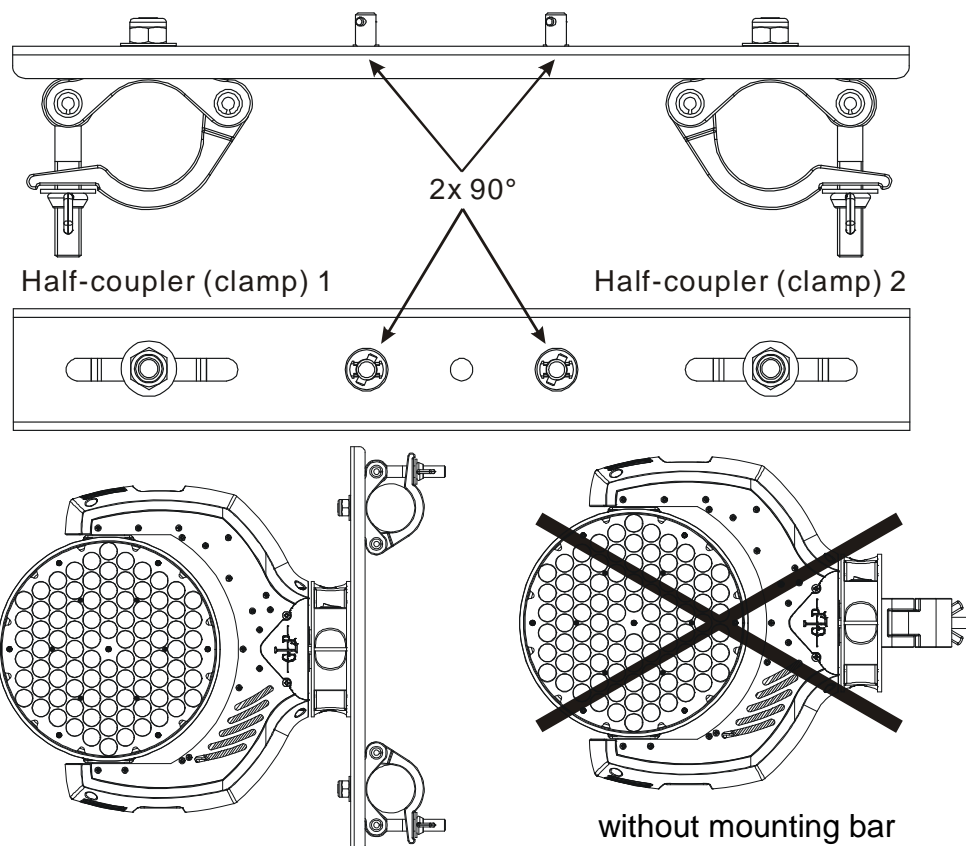
2.2 Securing the Device

Regardless of the mounting method of the **IMPRESSION** you'll have to use a secondary safety wire. This safety wire can be attached to the fixture by threading it through one of the two holes provided on the base of the fixture. Ensure that the safety wire is securely fastened through the fixture and the fixtures mounting support. Install a safety wire that can hold at least 10 times the weight of the fixture.

2.3 Connections

2.3.1 Power Supply

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

Connected load 350 VA (W) <=> T4A (micro-fuse 5x20mm)

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

Disconnect from the mains supply before 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 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 to the next menu level or to confirm your settings. Select **ON/ OFF** function settings with the **Up/Down-**keys. Confirm and save 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

← MODE - ENTER →

← DOWN - UP →
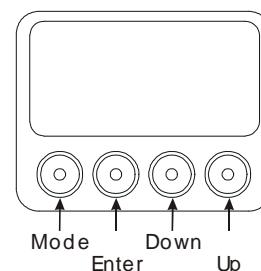
Level1	Level 2	Level 3	Level 4	Remark
DMX Start Address				Define the DMX start address
Special	Manual DMX			Manual control of all system functions
		Pan		Manual control for Pan (X-movement)
		Speed Movements		Speed adjustment for Pan/Tilt movements → see also item below
		Pan/Tilt Movements		Manual control for Pan/Tilt movement
		Special		Activate the White- or Full-Power Mode; see also DMX table
		Dimmer		Manual control for dimmer
		Shutter		Manual control for shutter
		1/3 White		Manual control for 1/3 white, 30x LEDs (either warm- or cold white depending on the system)
		2/3 White		Manual control for 2/3 white, 60x LEDs (either warm- or cold white depending on the system)
		Tilt		Manual control for tilt (Y-movement)
	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
	Adjust	Key code xxxx		Use the code for entering the calibration menu (for authorized persons only)
		Pan Offset		Calibration for Pan-Offset
		Tilt Offset		Calibration for Tilt-Offset
		Clear EEPROM		Erase EEPROM memory
	Diagnose			Diagnose functions

				Description
		Pos Feed Pan Delta		Internal data and function diagnosis
		Anz Ti0-Int-Err		Internal data and function diagnosis
		Dimmerwert für DIM1		Internal data and function diagnosis
		Dimmerwert für DIM2		Internal data and function diagnosis
		Dimmerwert für DIM3		Internal data and function diagnosis
		PFC Voltage		Shows the present PFC voltage
		Pos Feed Tilt Delta		Internal data and function diagnosis
	Temperature Arm			Indicates the arm temperature
	Temperature Head			Indicates the head temperature
	PAN/TILT Motor Power			Switches power for Pan/Tilt ON or OFF (disconnected from power)
	PAN/TILT Silent Mode			Reduces maximum speed for Pan/Tilt
	DMX Hold			Defines whether the last DMX signal is stored or the lamp is switched OFF in case of signal interruption
	Position Feedback			Automatically position feedback (correction) for Pan/Tilt movement
	Set DMX Image			Stores the Scene currently sent to the unit
	DMX input Monitor			Indicates the presently received DMX signal per DMX channel
		Pan		Instantaneous value for Pan
		Speed Movements		Speed adjustment for Pan/Tilt movements → see item below
		Pan/Tilt Movements		Instantaneous value for speed movements
		Special		Instantaneous value for special channel
		Dimmer		Instantaneous value for dimmer
		Shutter		Instantaneous value for shutter
		1/3 White		Instantaneous value for 1/3 White, 30x LEDs (either warm- or cold white depending on the system)
		2/3 White		Instantaneous value for 2/3 White, 60x LEDs (either warm- or cold white depending on the system)
		Tilt		Instantaneous value for Tilt movement
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
Select DMX Mode				Allows selection of the desired DMX Mode
	Compressed			Fixture works in "Compressed" mode → see also sectiion 4
	Normal			Fixture works in "Normal" mode → see also section 4

← DOWN - UP →

	High-Resolution	Fixture works in "High Resolution" mode → see also section 4
Reverse Pan		Selects Inverse Pan, on or off
Reverse Tilt		SelectsInverse Tilt on or off
Reset		RESET all functions

4 DMX Channel Selection (DMX Protocol)

Normal-Mode 11 DMX channels

Channel	Function			Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 660°			min. 3,2 sec.	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°			min. 1,5 sec.	0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1,2°(16 Bit)				0..255	00..F F	0..100
5) White 2/3	White Color, 60x LEDs (either warm- or cold white depending on the system)			0 - 100%	0..255	00..FF	0..100
6) White 1/3	White Color, 30x LEDs (either warm- or cold white depending on the system)			0 - 100%	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
	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, stop break			5 sec. - 1 sec.	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
8) Dimmer	Dimmer			0 - 100%	0..255	0..FF	0..100
9) Special	Fan min. as long as temp. < 60℃				224..249	E0..E5	88..89,5
	RESET (Normal Mode)				**250..255**	**FA..FF**	**98..100**
10) 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
	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

Channel	Function		Time and Value	DMX	HEX	%
	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
11) Speed Pan/Tilt	Pan/Tilt relative movement			0..1	00..01	0..0,5
	Pan/Tilt slow – fast Use this channel also for the speed of the movements		Pan Min. 660°= 200s Pan Max. 660°= 2,65s Tilt Min. 300°= 110s Tilt Max. 300°= 1,8s	2..255	02..FF	1..100

Compress-Mode 8 DMX channels

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 660°	min. 3,2 s	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°	min. 1,5 s	0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1,2°(16 Bit)		0..255	00..F F	0..100
5) White 2/3	White Color, 60x LEDs (either warm- or cold white depending on the system)	0 - 100%	0..255	00..FF	0..100
6) White 1/3	White Color, 30x LEDs (either warm- or cold white depending on the system)	0 - 100%	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, stop break	5 sec. - 1 sec.	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**
8) Dimmer	Dimmer	0 - 100%	0..255	0..FF	0..100

High Resolution (Extended)- Mode 11 DMX Channels

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 660°	min. 3,2 s	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°	min. 1,5 s	0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1,2°(16 Bit)		0..255	00..F F	0..100
5) White 2/3 coarse	White Color, 60x LEDs (either warm- or cold white depending on the system)	0 - 100%	0..255	00..FF	0..100

Channel	Function	Time and Value	DMX	HEX	%
6) White 2/3 fine	White - fine/low		0..255	00..FF	0..100
7) White 1/3 coarse	White Color, 30x LEDs (either warm- or cold white depending on the system)	0 - 100%	0..255	00..FF	0..100
8) White 1/3 fine	White - fine/low		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..31,5
	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, stop break	5 sec. - 1 sec.	144..199	A0..C7	57..77
	Strobe effect, slow - fast	1 Hz .. 10 Hz	200..239	C8..EF	78..94
	RESET	Min. 3 Sec.	250	FA	98
12) Dimmer-coarse	Dimmer - coarse/high	0 - 100%	0..255	0..FF	0..100
13) Dimmer-fine	Dimmer - fine/low		0..255	0..FF	0..100

Locking and unlocking the Control Panel

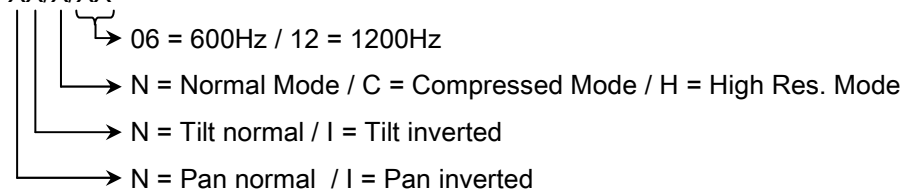You can lock and unlock the control panel by pressing the menu keys **MODE & ENTER & UP** at the same time.

Additional shortcut features when switching on the fixture

a) 1200Hz Mode (Hold down the **UP- button** during power ON)

After switching on, the fixture the LEDs will be operated with a Pulse Width Modulation (PWM) of 1200Hz.

In addition, all standard settings will be loaded (DMX start address [001], Normal Mode).

b) 600Hz Mode (Hold down the **DOWN- button** during power ON)

After switching on, the fixture the LEDs will be operated with a Pulse Width Modulation (PWM) of 600Hz.

 In addition, all standard settings will be loaded (DMX start address [001], Normal Mode).

c) Standard Mode (Hold down the **ENTER- button** during power ON)

After switching on the fixture, the DMX start address will be set to [001]. All other settings will 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

5 Maintaining and Cleaning the IMPRESSION

The **IMPRESSION** is a low maintenance fixture. 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. If they do, the fixture's light output will be significantly reduced, and damages to the fixture may occur. Regular cleaning will not only ensure the maximum light output, but will also allow the fixture to operate reliably throughout its entire life.

A soft lint-free cloth moistened with any good glass cleaning fluid is recommended. Under no circumstances should alcohol or solvents be used to clean the fixture or its lenses!

5.1 Safety regulations

- **Disconnect the fixture from the mains power before commencing any maintenance work!**

- Wait minimum 15 minutes after removing the power to allow the fixture to cool down.

5.2 Maintenance Intervals (rule-of-thumb)

The maintenance schedule of any given fixture depends on the installation environment. Hence no specific guidelines can be given. The cleaning intervals given below are suggestions, based on practical experience. We suggest that you start with these and develop your own maintenance schedule as you see the fixtures performance in your specific environment.

Maintenance Task	Interval	How
Cleaning of LED lenses and optical system	weekly	soft brush /lint-free cloth
Cleaning of fans and air channels	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 touch dry.**
- **Never touch lenses with bare fingers.**

6 Technical Specifications

Power supply	
Power consumption	350 VA (Watt)
Power Input	~100-240 V AC, 50-60 Hz (auto sensing input)
Fuse protection	Micro-fuse 5x20 mm, T4A
Operational Parameters	
Max. Ambient Temperature	45°C / 113°F (integrated overheating switch)
Mounting Position	Any (see chapter mounting)
Lighting System - Additive Color mixing (8/16 Bit)	
LED Type	90x Luxeon K2 High-power- LEDs
Lifetime	50.000 h
→ **CCW version:** 60x LEDs cold white, 30x LEDs warm white	
→ **WWC version:** 30x LEDs cold white, 60x LEDs warm white	
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].	
Pan / Tilt (8/16 Bit)	
Pan- movement	**660° in min. 3,2 seconds (Position Feedback)**
Tilt- movement	**300° in min. 1,5 seconds (Position Feedback)**
Weights and Measures	
Width	**340 mm / 13.4 inches**
Depth	**145 mm / 5.7 inches**
height (head vertical)	**370 mm / 14.6 inches**
Weight (net)	**7.5 kg / 17 lbs.**

7 Index