

impression[®]

Instruction Manual

WWC & CCW



WWC & CCW

from software version 1.01/30
(Instruction version 1.03)



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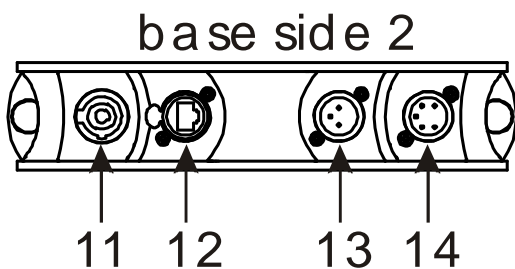
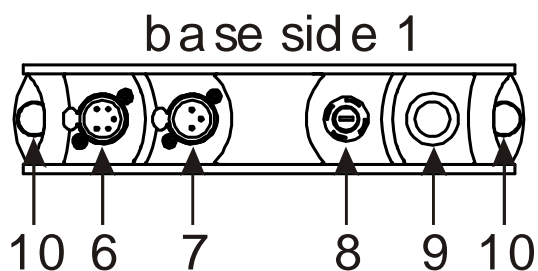
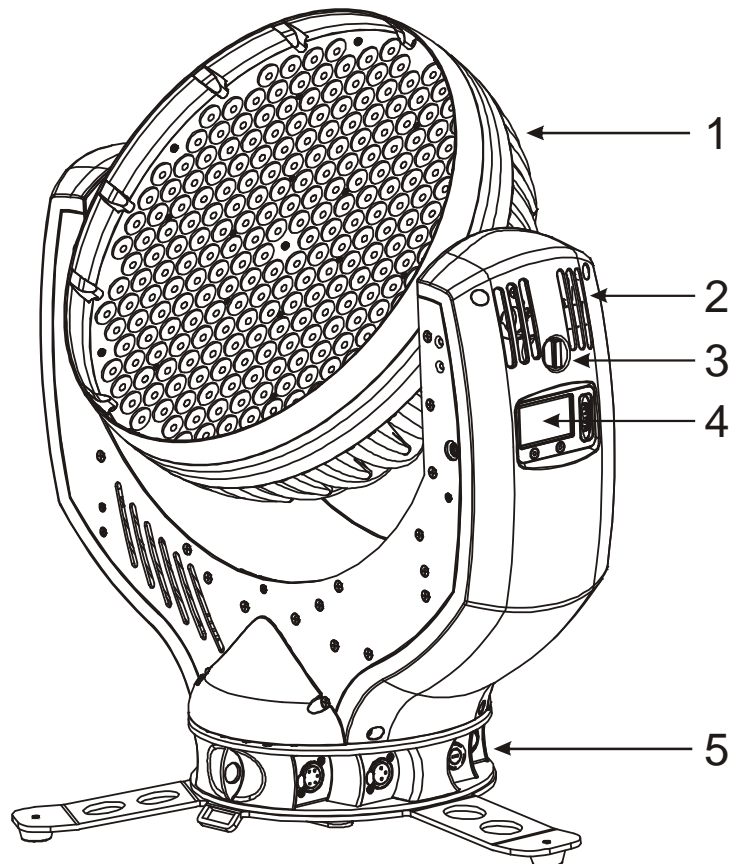
Table of content

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>	7
2.1.2	<i>Mounting in hanging position (Head down)</i>	8
2.1.3	<i>Mounting in sideway position</i>	8
2.2	Securing the Device.....	9
2.3	Connections.....	9
2.3.1	<i>Power Supply</i>	9
2.3.2	<i>DMX</i>	9
3	The Menu Field	10
4	DMX Channel Selection (DMX Protocol)	12
5	Maintaining and Cleaning the IMPRESSION XL	15
5.1	Safety regulations	15
5.2	Maintenance Intervals (rule-of-thumb)	15
6	Technical Specifications	16
7	Index	17

1 Description of Device

1. Moving head (actively and passively cooled)
2. Arm with various cooling vents
3. Tilt-Lock to secure head against unmeant movements
→ see also 1.1
4. LCD-Display/Menu (data entry)
5. Base with various connectors and Camlock mounting system

→ Eyelets for safety cable



6. DMX- Output (5 pole)
7. DMX- Output (3 pole)
8. Micro-fuse 6.3x32mm, T15A
9. Power On/Off
10. 2x eyelets for safety cable
11. Mains supply (Powercon)
12. Blank panel
13. DMX- Input (3 pole)
14. DMX- Input (5 pole)

Note: Only connect one cable to the DMX-Out/Input at a time!

1.1 Safety Instructions



The **IMPRESSION XL** 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 XL** without suitable mounting devices can increase the risk of an accident.
9. The **IMPRESSION XL** 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.

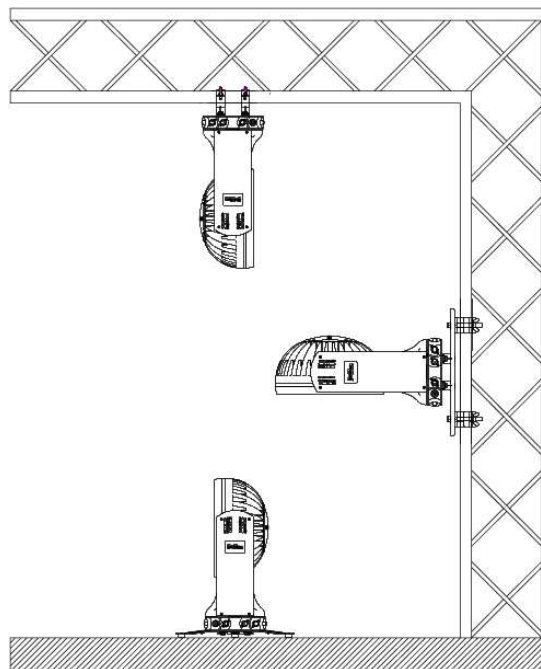
Pressure in these areas could result in damages which will not be covered by the standard warranty.

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 XL** 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.).



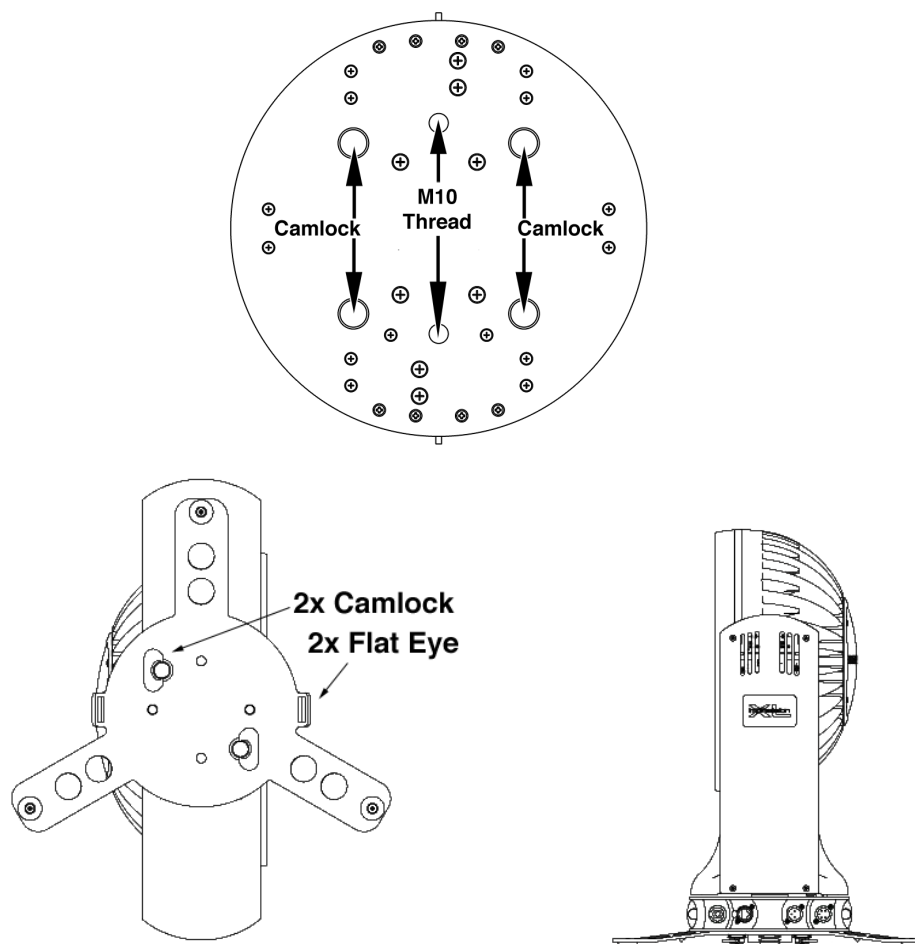
Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217.

The installation shall be done by qualified personal only.

For the various mounting positions of the **IMPRESSION XL** (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.

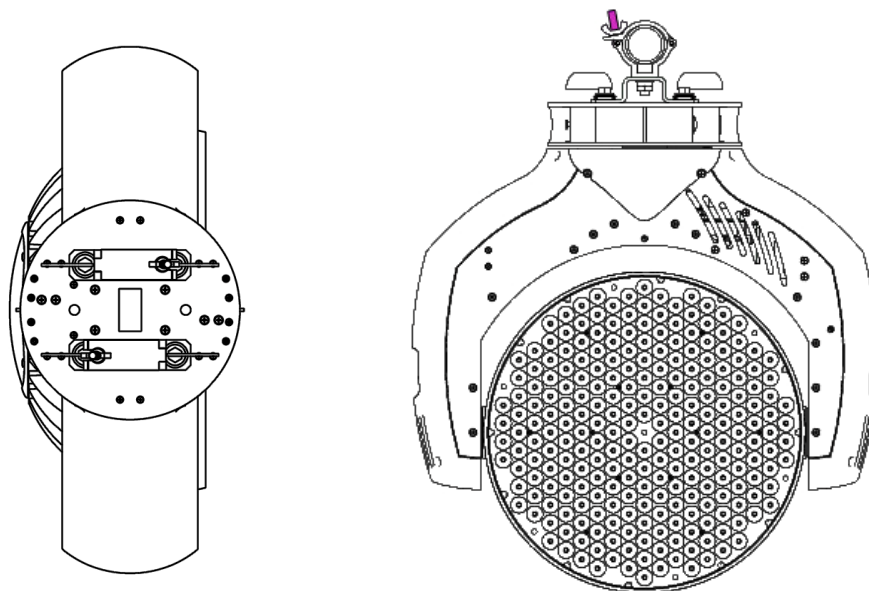
2.1.1 Mounting on the floor (upright)

To operate the **IMPRESSION XL** 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 through a fixing strap. This allows additional bracing of the floor-stand during the upright operation.



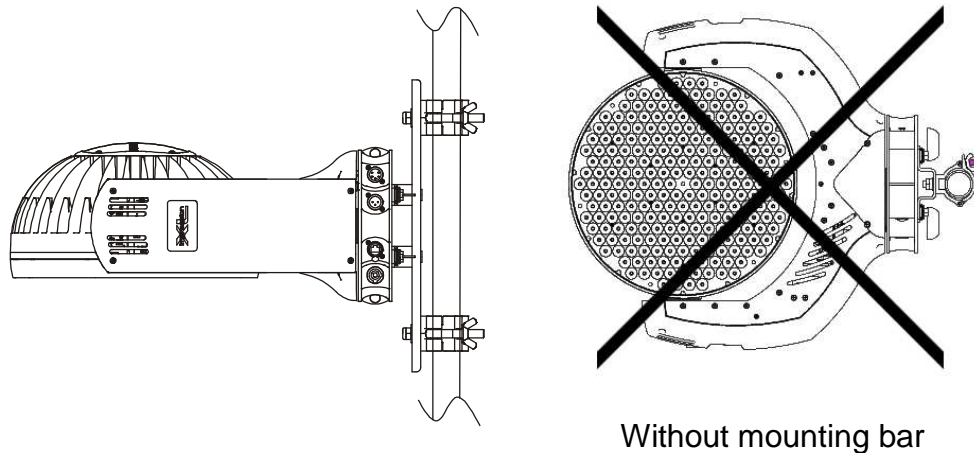
2.1.2 Mounting in hanging position (Head down)

To operate the **IMPRESSION XL** in a hanging position, two omega brackets can be mounted directly to the bottom of the base using the four Camlock connectors.



2.1.3 Mounting in sideways position

To operate the **IMPRESSION XL** 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 four 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 sideways position, as the fixtures base can become damaged, and a secure installation cannot be assured.



2.2 Securing the Device

Regardless of the mounting method of the **IMPRESSION XL** 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 - Powercon

Connected load 1200 VA (W) \Leftrightarrow T15A (micro-fuse 6.3x32mm)

Please see printing on the case for the correct mains 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 and 5 pole connectors.

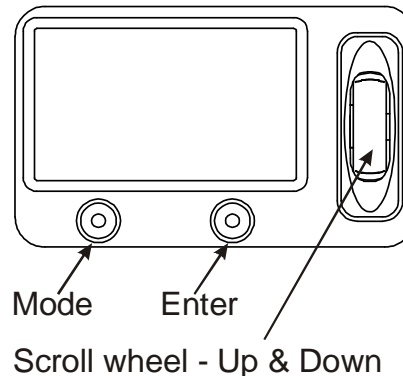
3 pole: Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+]

5 pole: 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 of the arm. It allows you to make all necessary adjustments of the **IMPRESSION XL**. 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 →

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
			Pos Feed Pan Delta	Internal data and function diagnosis
			Anz Ti0-Int-Err	Internal data and function diagnosis

← DOWN - UP →

← DOWN - UP →

		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
			Indicates the arm temperature
			Indicates the head temperature
			Switches power for Pan/Tilt ON or OFF (disconnected from power)
			Reduces maximum speed for Pan/Tilt
			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
			Stores the Scene currently sent to the unit
			Indicates the presently received DMX signal per DMX channel
			Current value for Pan
			Speed adjustment for Pan/Tilt movements → see item below
			Instantaneous value for Pan/Tilt movements
			Instantaneous value for Special
			Instantaneous value for Dimmer
			Instantaneous value for Shutter
			Instantaneous value for 1/3 White, 30x LEDs (either warm- or cold white depending on the system)
			Instantaneous value for 2/3 White, 60x LEDs (either warm- or cold white depending on the system)
			Instantaneous value for Tilt movement
			Performs an automatic self-test
			Indicates the overall operation time of the system
			Adjust the display
			ON/OFF: Display OFF
			Please select the desired DMX Mode
			Fixture works in "Compressed" mode → see also section 4
			Fixture works in "Normal" mode → see also section 4
			Fixture works in "High Resolution" mode → see also section 4
			Selects Inverse Pan, on or off
	Temperature Arm		
	Temperature Head		
	PAN/TILT Motor Power		
	PAN/TILT Silent Mode		
	DMX Hold		
	Position Feedback		
	Set DMX Image		
	DMX input Monitor		
		Pan	
		Speed Movements	
		Pan/Tilt Movements	
		Special	
		Dimmer	
		Shutter	
		1/3 White	
		2/3 White	
		Tilt	
	Self Test		
	Live time		
	Display		
		Blackout	
	Select DMX Mode		
		Compressed	
		Normal	
		High-Resolution	
	Reverse Pan		

Reverse Tilt
Reset

Selects Inverse Tilt on or off

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..FF	0..100	
5) White 2/3	White Color, 156x LEDs (either warm- or cold white depending on the system)	0 - 100%	0..255	00..FF	0..100	
6) White 1/3	White Color, 84x 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. < 90°C		224..249	E0..E5	88..89,5	
	RESET (Normal Mode)		250..255	FA..FF	98..100	
10) Movement	No Movement		0	00	0	
	Movement	Size	Phase			
	PAN	1	0°	01..01	01..01	0,5
		1	90°	02..03	02..03	1,0
		1	180°	04..05	04..05	1,7
		1	270°	06..07	06..07	2,5
	PAN	2	0°	08..09	08..09	3,3
		2	90°	10..11	0A..0B	4,1
		2	180°	12..13	0C..0D	4,9
		2	270°	14..15	0E..0F	5,7
	PAN	3	0°	16..17	11..11	6,5
		3	90°	18..19	12..13	7,3
		3	180°	20..21	14..15	8,0
		3	270°	22..23	16..17	8,8
	PAN	4	0°	24..25	18..19	9,6
		4	90°	26..27	1A..1B	10,4
		4	180°	28..29	1C..1D	11,2
		4	270°	30..31	1E..1F	12
	TILT	size / phase see also PAN		32..63	20..3F	13..25
PAN / TILT	size / phase see also PAN		64..95	40..5F	26..37	

Channel	Function	Time and Value	DMX	HEX	%
	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° Tilt Min. 300° = 110s Tilt Max. 300°	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..FF	0..100
5) White 2/3	White Color, 156x LEDs (either warm- or cold white depending on the system)	0 - 100%	0..255	00..FF	0..100
6) White 1/3	White Color, 84x 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
	Shutter open		251..255	FB..FF	99..100
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..FF	0..100

Channel	Function	Time and Value	DMX	HEX	%
5) White 2/3 coarse	White Color, 156x LEDs (either warm- or cold white depending on the system)	0 - 100%	0..255	00..FF	0..100
6) White 2/3 fine	White - fine/low		0..255	00..FF	0..100
7) White 1/3 coarse	White Color, 84x 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
	Shutter closed		0..15	00..0F	0..5,5
	Shutter open		251..255	FB..FF	99..100
10) Dimmer-coarse	Dimmer - High	0 - 100%	0..255	0..FF	0..100
11) Dimmer-fine	Dimmer - 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.

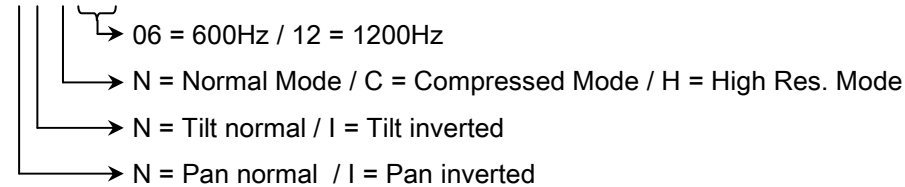
Additional shortcut features when switching on the fixture

- 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

**5 Maintaining and Cleaning the IMPRESSION XL**

The **IMPRESSION XL** 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	1200 VA (Watt)
Power Input	~100-240 V AC, 50-60 Hz (auto sensing input)
Fuse protection	Micro-fuse 6.3x32 mm, T15A
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	240x Luxeon K2 High-power- LEDs
Lifetime	50.000 h
→ CCW version: 156x LEDs cold white, 84x LEDs warm white	
→ WWC version: 84x LEDs cold white, 156x LEDs warm white	
Optical System	
High efficient Collimator cluster	
Exchangeable optical carrier with 10° light distribution angle (25° optional)	
Scattering light aperture	
Shutter / Dimmer (8/16 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, 3/5 pole XLR; [+] = Pin 3 [-] = Pin 2 [Ground] = Pin 1. DMX- Addressing starts at the DMX channel [001].	
Pan / Tilt (8/16 Bit)	
Pan- movement	660° (Position Feedback)
Tilt- movement	300° (Position Feedback)
Weights and Measures	
Width of the base	521 mm
Length of the base	217 mm
Height (head vertical)	550 mm
Fixture weight (net)	23,5 kg
Floor Mount weight (net)	2 kg

7 Index

B	
BGV C1.....	6
C	
CCW version	2
Circumference	15
Cleaning.....	15
Cold white LEDs	2
Compress-Mode	13
D	
Description of Device.....	4
DIN VDE 0711-217	6
DMX	9
DMX Protocol	12
E	
e-mail.....	1
Enter-key	10
Eyelets	7
H	
<i>Half-couplers (clamps)</i>	8
High Resolution (Extended) -Mode	13
I	
Instruction version	1
Internet.....	1
L	
LED Class 2M	5
Luxeon K2 High-power- LEDs.....	16
M	
Maintenance	15
Micro-fuse	9
Mode-key	10
Mounting	6
Mounting in hanging Position	8
<i>Mounting in sidewise Position</i>	8
Mounting on the Floor	7
N	
Normal-Mode	12
O	
Optical parts	16
P	
Pan- Movement.....	16
Position Feedback	16
Power Supply	9
Powercon	4
S	
Safety distance	6
Safety Instructions	5
Secure the Device	9
Self Test	11
Software Version.....	1
T	
Technical Specifications	16
The Menu Field	10
Tilt- Movement	16
U	
Up/Down-keys	10
V	
VBG 70	6
W	
Warm white LEDs	2
Warranty claims	6
Weights and Measures	16
WWC version	2

