

Instruction Manual

impression[®]
X4L



from software version: v045



— since 1994 —

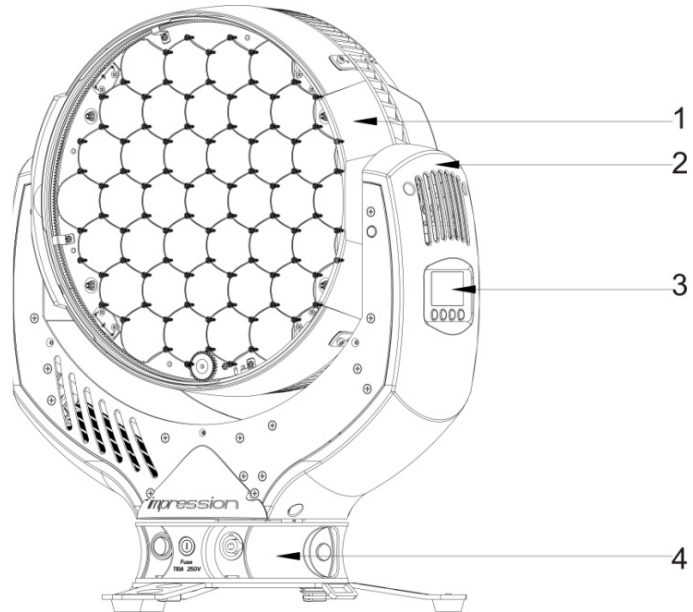
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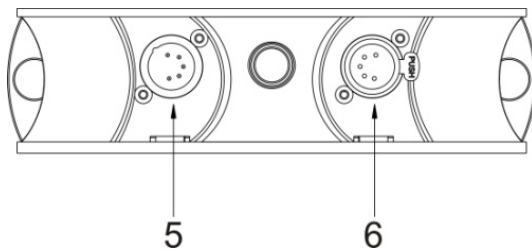
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1 Description of Device

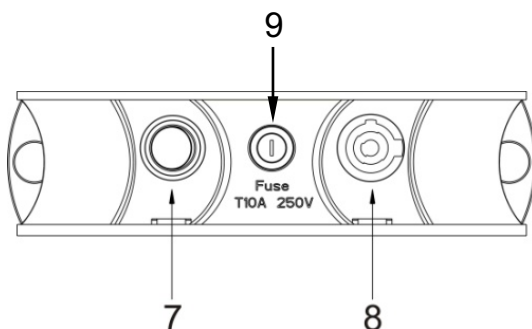
1. Moving head
(actively and passively cooled)
2. Arm with various cooling vents
3. LCD-Display/Menu (data entry)
4. Base with various connectors and
Camlock mounting system
(see section 2.2 below)



Base side view:



5. DMX Input (5 pin)
6. DMX Output (5 pin)



7. Power On/Off
8. Mains Input (powerCON)
9. Micro-fuse 5x20mm, T10A

2 Safety Instructions



The **IMPRESSION X4 L** 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.



Never look directly into the beam of light or into one of the LEDs. **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!



WARNING:

Never let optical parts come in contact with alcohol, solvents or similar cleaners.

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.
6. To ensure safe operation, follow also the Installation guide described in the chapter below. Operating the **IMPRESSION X4 L** without suitable safety aids like Safety cables or clamps/hooks can increase the risk of an accident and must be avoided.
7. 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.
8. Use only original GLP spare parts. Any structural modification of the system will terminate all warranty claims.
9. Please keep this instruction manual for future reference.



Important Safety Information

The **IMPRESSION X4 L** fixture 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.

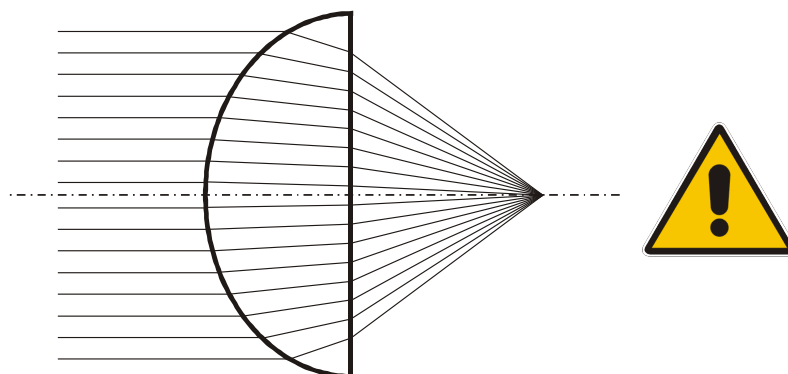
If the rays from a strong light source (such as the sun or another lighting fixture) are directed towards the front of any of these fixtures, then internal damage may occur. In a worst case scenario with a high power light source this can happen very quickly, damaging the fixture internally, potentially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

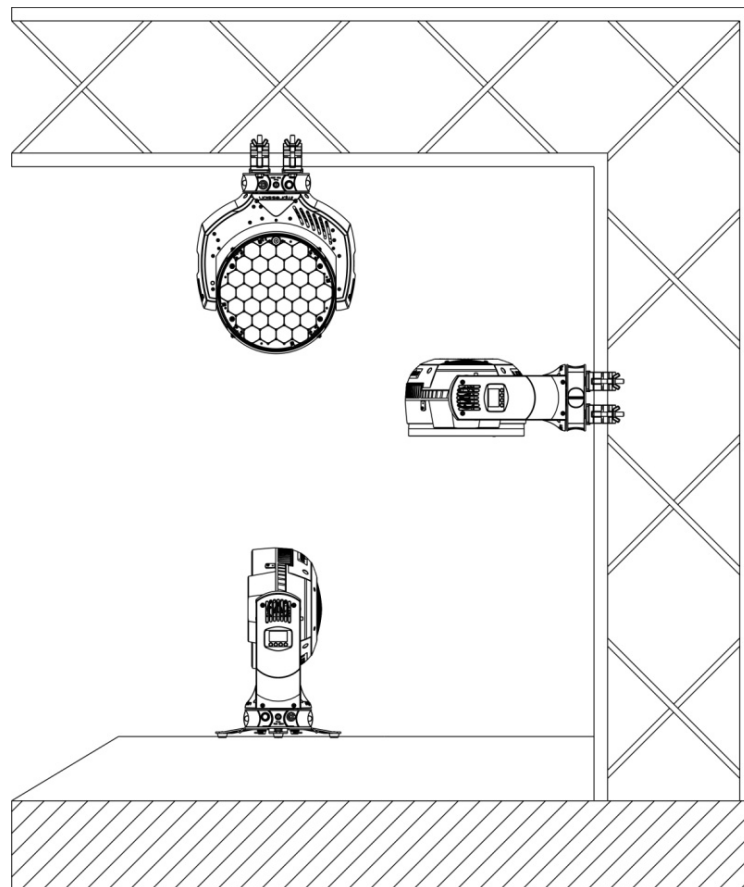


Should you have any questions about the operation of your fixture then please contact your local GLP office, or their authorized distributor, a list of which can be found at www.glp.de.

3 Preparation and Installation

3.1 Mounting

The **IMPRESSION X4 L** 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.).

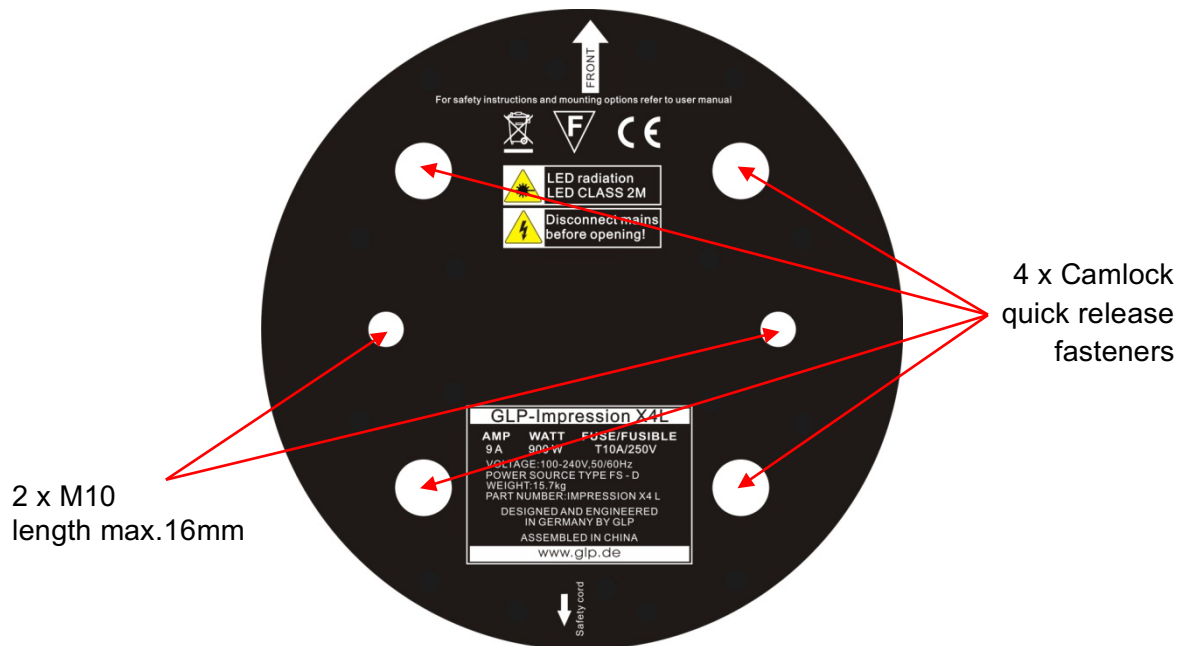


Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217.

The installation shall be done by qualified staff only.

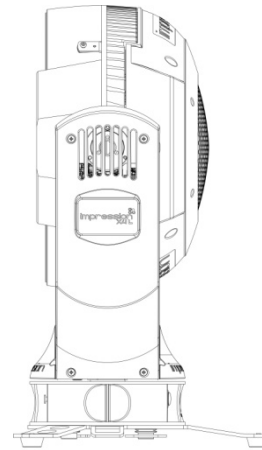
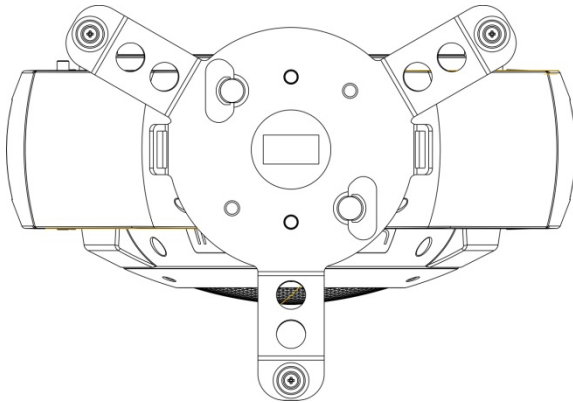
For the various mounting positions of the **IMPRESSION X4 L** (standing on the floor, sideways or hanging) different accessories kits are available. Through this a safe and firm installation is assured. You'll find dedicated connectors on the bottom side of the fixture which should be used. In addition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

Base plate view:



3.1.1 Operating on the Floor (upright)

To operate the **IMPRESSION X4 L** 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.

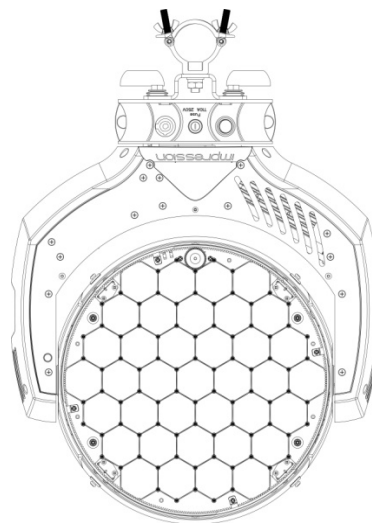
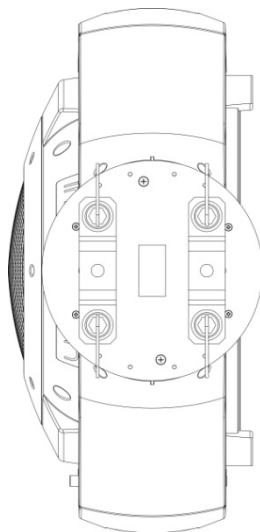


3.1.2 Mounting in hanging position (head down):

To operate the **IMPRESSION X4 L** in a hanging position two (2) omega brackets can be mounted directly to the bottom of the base using the four (4) Camlock connectors.

Alternatively two (2) half-couplers (clamps or hooks) can be mounted directly to the bottom side of the fixture using the two (2) M10x16 mm thread bolts.

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



3.2 *Securing the Fixture*

Regardless of the mounting method of the **IMPRESSION X4 L** 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.

3.3 *Connections*

3.3.1 *Power Supply*

~100-240 Volt AC, 50-60 Hz, powerCON AC connector

Connected load 900 VA (W) <=> T10A (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.

3.3.2 *DMX*

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

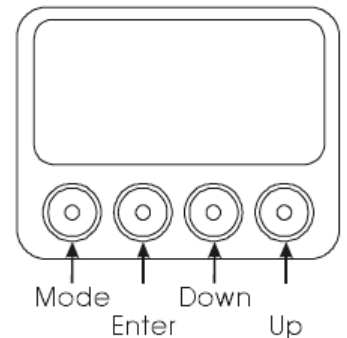
Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+] / Pin 4&5 N.C.

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

4 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 L**.

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 →

	Level 1	Level 2	Level 3	Level 4	Remark
	DMX Start Address 001				Set the DMX start address
	Special				Advanced settings
← DOWN - UP →	Set DMX Mode	Compressed Mode			Fixture works in "Compressed" mode → see also section 4 below
		Normal Mode			Fixture works in "Normal" mode → see also section 4 below
		Extended Mode			Fixture works in "Extended" mode → see also section 4 below
		Single Pixel Mode			Fixture works in "Single Pixel" mode → see also section 4 below
		Position feedback			
	Reverse Tilt				Invert Tilt movements: ON/OFF
	Reverse Pan				Invert Pan movements: ON/OFF
	Reset				RESET and new calibration for all functions

5 DMX Chanel Selection (DMX Protocol)

5.1 Normal Mode (norm) 29 DMX channels:

Channel	Function	Time and Value	DMX
1 Pan - High	Pan coarse	0° - 660°	0..255
2 Pan - Low	Pan fine		0..255
3 Tilt - High	Tilt coarse	0° - 250°	0..255
4 Tilt - Low	Tilt fine		0..255
5 Color (fixed)	Colors adjustable via RGB		0..7
	Color 01 - Red ¹⁾		8..15
	Color 02 - Amber ¹⁾		16..23
	Color 03 - Warm Yellow ¹⁾		24..31
	Color 04 - Yellow ¹⁾		32..39
	Color 05 - Green ¹⁾		40..47
	Color 06 - Turquoise ¹⁾		48..55
	Color 07 - Cyan ¹⁾		56..63
	Color 08 - Blue ¹⁾		64..71
	Color 09 - Lavender ¹⁾		72..79
	Color 10 - Malve ¹⁾		80..87
	Color 11 - Magenta ¹⁾		88..95
	Color 12 - Pink ¹⁾		96..103
	White – CTO	3200K	104..111
	White	5600K	112..119
	White – CTB	7200K	120..127
	Rainbow Effect Stop ²⁾		128
	Rainbow Effect ³⁾	slow - fast	129..223
	Random colors	slow - fast	224..255
6 Red	Color mixing system - Red	0 - 100%	0..255
7 Green	Color mixing system - Green	0 - 100%	0..255
8 Blue	Color mixing system - Blue	0 - 100%	0..255
9 White	Color mixing system - White	0 - 100%	0..255
10 Shutter	Shutter closed		0..15
	Shutter pulse random	slow – fast	16..47
	Fade on, snap off (random patterns)	slow – fast	48..79
	Snap on, fade off (random patterns)	slow – fast	80..111
	Fade on, fade off (random patterns)	slow – fast	112..143
	Strobe random	5s - 0.1s	144..199
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239
	Shutter open		240..255

11 Intensity	Intensity	0 - 100%	0..255	
12 CTO	No CTO		0..7	
	Continuous color temperature correction 2,500k – 10,000k	<i>Applicable for ALL colors</i>	8..255	
13 Special	Pattern Block 1		0..3	
	Pattern Block 2		4..7	
	Pattern Block 3		8..11	
	Pattern Block 4		12..15	
	Pattern Block 5		16..19	
	Pattern Block 6		20..23	
	Pattern Block 7		24..27	
	Pattern Block 8		28..31	
	Pattern Block 9		32..35	
	Pattern Block 10		36..39	
	Switch Pattern to Animation		80..83	
	Set Zoom normal	> 1 sec	216..219	
	Set Zoom inverted	> 1 sec	220..223	
RESET	> 1 sec	250..255		
14 Movement	No macros		0..4	
Macros	Movement	Speed	Phase	<i>Use channel 15 to adjust</i>
	Pan	1	0°	01..01
	Pan	1	90°	02..03
	Pan	1	180°	04..05
	Pan	1	270°	06..07
	Pan	2	0°	08..09
	Pan	2	90°	10..11
	Pan	2	180°	12..13
	Pan	2	270°	14..15
	Pan	3	0°	16..17
	Pan	3	90°	18..19
	Pan	3	180°	20..21
	Pan	3	270°	22..23
	Pan	4	0°	24..25
	Pan	4	90°	26..27
	Pan	4	180°	28..29
	Pan	4	270°	30..31
	Tilt	size / phase see Pan		32..63
	Pan / Tilt	size / phase see Pan		64..95
	Pan / Tilt (inverse)	size / phase see Pan		96..127
Circle	size / phase see Pan		128..159	

	Circle (inverse)	size / phase see Pan	160..191
	Lying eight	size / phase see Pan	192..223
	Random movement	size / phase see Pan	224..255
15 Pan / Tilt Speed	Pan/Tilt movement speed from controller		0..1
	Pan/Tilt, slow – fast		2..255
	<i>Use this channel for the speed of the macros on channel 14</i>		
16 Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
17 Pattern	No Pattern		0
	255 pre-defined patterns		1..255
	255 pre-defined animations (<i>only if Channel 13 is set to 80..83</i>)		1..255
18 Intensity Front	Intensity foreground layer	0 - 100%	0..255
19 Intensity Back	Intensity background layer ⁴⁾	0 - 100%	0..255
20 Back Red	Color mixing system - Background Red ⁴⁾	0 - 100%	0..255
21 Back Blue	Color mixing system - Background Green ⁴⁾	0 - 100%	0..255
22 Back Green	Color mixing system - Background Blue ⁴⁾	0 - 100%	0..255
23 Back White	Color mixing system - Background White ⁴⁾	0 - 100%	0..255
24 A - Phase	Animation starting point		0..255
25 A - Speed	Animation speed (<i>starting from point set in Channel 24</i>)		1..255
26 Crossfade	0..2 seconds transistion time		0..255
27 Pattern Orientation	Pan Normal / Tilt Normal	0°	0..1
	Pan Normal / Tilt Normal	60°	2..3
	Pan Normal / Tilt Normal	120°	4..5
	Pan Normal / Tilt Normal	180°	6..7
	Pan Normal / Tilt Normal	240°	8..9
	Pan Normal / Tilt Normal	300°	10..11
	Pan Normal / Tilt Inverted	0°	16..17
	Pan Normal / Tilt Inverted	60°	18..19
	Pan Normal / Tilt Inverted	120°	20..21
	Pan Normal / Tilt Inverted	180°	22..23
	Pan Normal / Tilt Inverted	240°	24..25
	Pan Normal / Tilt Inverted	300°	26..27
	Pan inverted / Tilt normal	0°	32..33
	Pan inverted / Tilt normal	60°	34..35
	Pan inverted / Tilt normal	120°	36..37
	Pan inverted / Tilt normal	180°	38..39
	Pan inverted / Tilt normal	240°	40..41
	Pan inverted / Tilt normal	300°	42..43
	Pan inverted / Tilt inverted	0°	48..49
	Pan inverted / Tilt inverted	60°	50..51

	Pan inverted / Tilt inverted	120°	52..53
	Pan inverted / Tilt inverted	180°	54..55
	Pan inverted / Tilt inverted	240°	56..57
	Pan inverted / Tilt inverted	300°	58..59
28 Pattern Effect	No effect		0..1
	crossfade		02..15
	random flash white	slow – fast	16..31
	random color	slow – fast	32..47
	random color background only	slow – fast	48..63
29 Beam Shaper (optional)	Beam Shaper position	0° - 540°	0..255

5.2 Compressed Mode (comp) 21 DMX Channels:

Channel	Function	Time and Value	DMX
1 Pan - High	Pan coarse	0° - 660°	0..255
2 Pan - Low	Pan fine		0..255
3 Tilt - High	Tilt coarse	0° - 250°	0..255
4 Tilt - Low	Tilt fine		0..255
5 Color (fixed)	Colors adjustable via RGB		0..7
	Color 01 - Red ¹⁾		8..15
	Color 02 - Amber ¹⁾		16..23
	Color 03 - Warm Yellow ¹⁾		24..31
	Color 04 - Yellow ¹⁾		32..39
	Color 05 - Green ¹⁾		40..47
	Color 06 - Turquoise ¹⁾		48..55
	Color 07 - Cyan ¹⁾		56..63
	Color 08 - Blue ¹⁾		64..71
	Color 09 - Lavender ¹⁾		72..79
	Color 10 - Malve ¹⁾		80..87
	Color 11 - Magenta ¹⁾		88..95
	Color 12 - Pink ¹⁾		96..103
	White – CTO	3200K	104..111
	White	5600K	112..119
	White – CTB	7200K	120..127
	Rainbow Effect Stop ²⁾		128
	Rainbow Effect ³⁾	slow - fast	129..223
	Random colors	slow - fast	224..255
6 Red	Color mixing system - Red	0 - 100%	0..255
7 Green	Color mixing system - Green	0 - 100%	0..255
8 Blue	Color mixing system - Blue	0 - 100%	0..255
9 White	Color mixing system - White	0 - 100%	0..255
10 Shutter	Shutter closed		0..15
	Shutter pulse random	slow – fast	16..47
	Fade on, snap off (random patterns)	slow – fast	48..79
	Snap on, fade off (random patterns)	slow – fast	80..111
	Fade on, fade off (random patterns)	slow – fast	112..143
	Strobe random	5s - 0.1s	144..199
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239
	Shutter open		240..255
11 Intensity	Intensity	0 - 100%	0..255

12 CTO	No CTO		0..7
	Continuous color temperature correction 2,500k – 10,000k	<i>Applicable for ALL colors</i>	8..255
13 Special	Pattern Block 1		0..3
	Pattern Block 2		4..7
	Pattern Block 3		8..11
	Pattern Block 4		12..15
	Pattern Block 5		16..19
	Pattern Block 6		20..23
	Pattern Block 7		24..27
	Pattern Block 8		28..31
	Pattern Block 9		32..35
	Pattern Block 10		36..39
	Switch Pattern to Animation		80..83
	Set Zoom normal	> 1 sec	216..219
	Set Zoom inverted	> 1 sec	220..223
RESET	> 1 sec	250..255	
14 Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
15 Pattern	No Pattern		0
	255 pre-defined patterns		1..255
	255 pre-defined animations (<i>only if Channel 13 is set to 80..83</i>)		1..255
16 A - Phase	Animation starting point		0..255
17 A - Speed	Animation speed (<i>starting from point set in Channel 24</i>)		1..255
18 Crossfade	0..2 seconds transition time		0..255
19 Pattern Orientation	Pan Normal / Tilt Normal	0°	0..1
	Pan Normal / Tilt Normal	60°	2..3
	Pan Normal / Tilt Normal	120°	4..5
	Pan Normal / Tilt Normal	180°	6..7
	Pan Normal / Tilt Normal	240°	8..9
	Pan Normal / Tilt Normal	300°	10..11
	Pan Normal / Tilt Inverted	0°	16..17
	Pan Normal / Tilt Inverted	60°	18..19
	Pan Normal / Tilt Inverted	120°	20..21
	Pan Normal / Tilt Inverted	180°	22..23
	Pan Normal / Tilt Inverted	240°	24..25
	Pan Normal / Tilt Inverted	300°	26..27
	Pan inverted / Tilt normal	0°	32..33
	Pan inverted / Tilt normal	60°	34..35
	Pan inverted / Tilt normal	120°	36..37
	Pan inverted / Tilt normal	180°	38..39
	Pan inverted / Tilt normal	240°	40..41
	Pan inverted / Tilt normal	300°	42..43
	Pan inverted / Tilt inverted	0°	48..49
	Pan inverted / Tilt inverted	60°	50..51
	Pan inverted / Tilt inverted	120°	52..53

	Pan inverted / Tilt inverted	180°	54..55
	Pan inverted / Tilt inverted	240°	56..57
	Pan inverted / Tilt inverted	300°	58..59
20 Pattern Effect	No effect		0..1
	crossfade		02..15
	random flash white	slow – fast	16..31
	random color	slow – fast	32..47
	random color background only	slow – fast	48..63
21 Beam Shaper (optional)	Beam Shaper position	0° - 540°	0..255

5.3 Extended Mode (high) 31 DMX Channels:

Channel	Function	Time and Value	DMX
1 Pan - High	Pan coarse	0° - 660°	0..255
2 Pan - Low	Pan fine		0..255
3 Tilt - High	Tilt coarse	0° - 250°	0..255
4 Tilt - Low	Tilt fine		0..255
5 Red - High	Color mixing system - Red - high	0 - 100%	0..255
6 Red - Low	Color mixing system - Red - low	0 - 100%	0..255
7 Green - High	Color mixing system - Green - high	0 - 100%	0..255
8 Green - Low	Color mixing system - Green - low	0 - 100%	0..255
9 Blue - High	Color mixing system - Blue - high	0 - 100%	0..255
10 Blue - Low	Color mixing system - Blue - low	0 - 100%	0..255
11 White - High	Color mixing system - White - high	0 - 100%	0..255
12 White - Low	Color mixing system - White - low	0 - 100%	0..255
13 Special	Pattern Block 1 Pattern Block 2 Pattern Block 3 Pattern Block 4 Pattern Block 5 Pattern Block 6 Pattern Block 7 Pattern Block 8 Pattern Block 9 Pattern Block 10 Switch Pattern to Animation Set Zoom normal Set Zoom inverted RESET	 > 1 sec > 1 sec > 1 sec	0..3 4..7 8..11 12..15 16..19 20..23 24..27 28..31 32..35 36..39 80..83 216..219 220..223 250..255
14 Shutter	Shutter closed Shutter pulse random Fade on, snap off (random patterns) Snap on, fade off (random patterns) Fade on, fade off (random patterns) Strobe random Strobe effect slow - fast Shutter open	 slow – fast slow – fast slow – fast slow – fast 5s - 0.1s 1 Hz - 10 Hz	0..15 16..47 48..79 80..111 112..143 144..199 200..239 240..255
15 Intensity - High	Intensity - coarse	0 - 100%	0..255
16 Intensity - Low	Intensity - fine	0 - 100%	0..255
17 CTO	No CTO Continuous color temperature correction 2,500k – 10,000k	 <i>Applicable for ALL colors</i>	0..7 8..255
18 Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255

19 Pattern	No Pattern		0
	255 pre-defined patterns		1..255
	255 pre-defined animations (only if Channel 13 is set to 80..83)		1..255
20 Intensity Front	Intensity foreground layer	0 - 100%	0..255
21 Intensity Back	Intensity background layer ⁴⁾	0 - 100%	0..255
22 Back Red	Color mixing system - Background Red ⁴⁾	0 - 100%	0..255
23 Back Blue	Color mixing system - Background Green ⁴⁾	0 - 100%	0..255
24 Back Green	Color mixing system - Background Blue ⁴⁾	0 - 100%	0..255
25 Back White	Color mixing system - Background White ⁴⁾	0 - 100%	0..255
26 A - Phase	Animation starting point		0..255
27 A - Speed	Animation speed (starting from point set in Channel 24)		1..255
28 Crossfade	0..2 seconds transistion time		0..255
29 Pattern Orientation	Pan Normal / Tilt Normal	0°	0..1
	Pan Normal / Tilt Normal	60°	2..3
	Pan Normal / Tilt Normal	120°	4..5
	Pan Normal / Tilt Normal	180°	6..7
	Pan Normal / Tilt Normal	240°	8..9
	Pan Normal / Tilt Normal	300°	10..11
	Pan Normal / Tilt Inverted	0°	16..17
	Pan Normal / Tilt Inverted	60°	18..19
	Pan Normal / Tilt Inverted	120°	20..21
	Pan Normal / Tilt Inverted	180°	22..23
	Pan Normal / Tilt Inverted	240°	24..25
	Pan Normal / Tilt Inverted	300°	26..27
	Pan inverted / Tilt normal	0°	32..33
	Pan inverted / Tilt normal	60°	34..35
	Pan inverted / Tilt normal	120°	36..37
	Pan inverted / Tilt normal	180°	38..39
	Pan inverted / Tilt normal	240°	40..41
	Pan inverted / Tilt normal	300°	42..43
	Pan inverted / Tilt inverted	0°	48..49
	Pan inverted / Tilt inverted	60°	50..51
Pan inverted / Tilt inverted	120°	52..53	
Pan inverted / Tilt inverted	180°	54..55	
Pan inverted / Tilt inverted	240°	56..57	
Pan inverted / Tilt inverted	300°	58..59	
30 Pattern Effect	No effect		0..1
	crossfade		02..15
	random flash white	slow – fast	16..31
	random color	slow – fast	32..47
	random color background only	slow – fast	48..63
31 Beam Shaper (optional)	Beam Shaper position	0° - 540°	0..255

5.4 Single Pixel Mode (spix) 169 DMX Channels:

Channel	Function	Time and Value	DMX
1 Pan - High	Pan coarse	0° - 660°	0..255
2 Pan - Low	Pan fine		0..255
3 Tilt - High	Tilt coarse	0° - 260°	0..255
4 Tilt - Low	Tilt fine		0..255
5 Color (fixed)	Colors adjustable via RGB		0..7
	Color 01 - Red ¹⁾		8..15
	Color 02 - Amber ¹⁾		16..23
	Color 03 - Warm Yellow ¹⁾		24..31
	Color 04 - Yellow ¹⁾		32..39
	Color 05 - Green ¹⁾		40..47
	Color 06 - Turquoise ¹⁾		48..55
	Color 07 - Cyan ¹⁾		56..63
	Color 08 - Blue ¹⁾		64..71
	Color 09 - Lavender ¹⁾		72..79
	Color 10 - Malve ¹⁾		80..87
	Color 11 - Magenta ¹⁾		88..95
	Color 12 - Pink ¹⁾		96..103
	White – CTO	3200K	104..111
	White	5600K	112..119
	White – CTB	7200K	120..127
	Rainbow Effect Stop ²⁾		128
	Rainbow Effect ³⁾	slow - fast	129..223
	Random colors	slow - fast	224..255
6 Red	Color mixing system - Red	0 - 100%	0..255
7 Green	Color mixing system - Green	0 - 100%	0..255
8 Blue	Color mixing system - Blue	0 - 100%	0..255
9 White	Color mixing system - White	0 - 100%	0..255
10 Shutter	Shutter closed		0..15
	Shutter pulse random	slow – fast	16..47
	Fade on, snap off (random patterns)	slow – fast	48..79
	Snap on, fade off (random patterns)	slow – fast	80..111
	Fade on, fade off (random patterns)	slow – fast	112..143
	Strobe random	5s - 0.1s	144..199
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239
	Shutter open		240..255
11 Intensity	Intensity	0 - 100%	0..255

12 CTO	No CTO		0..7
	Continuous color temperature correction 2,500k – 10,000k	<i>Applicable for ALL colors</i>	8..255
13 Special	Pattern Block 1		0..3
	Pattern Block 2		4..7
	Pattern Block 3		8..11
	Pattern Block 4		12..15
	Pattern Block 5		16..19
	Pattern Block 6		20..23
	Pattern Block 7		24..27
	Pattern Block 8		28..31
	Pattern Block 9		32..35
	Pattern Block 10		36..39
	Switch Pattern to Animation		80..83
	Set Zoom normal	> 1 sec	216..219
	Set Zoom inverted	> 1 sec	220..223
RESET	> 1 sec	250..255	
14 Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
15 Pattern	No Pattern		0
	254 pre-defined patterns		1..254
	254 pre-defined animations (only if Channel 13 is set to 80..83)		1..254
	Single Pixel enabled (use channel 22-169 to set RGBW)		255
16 A - Phase	Animation starting point		0..255
17 A - Speed	Animation speed (starting from point set in Channel 24)		1..255
18 Crossfade	0..2 seconds transistion time		0..255
19 Pattern Orientation	Pan Normal / Tilt Normal	0°	0..1
	Pan Normal / Tilt Normal	60°	2..3
	Pan Normal / Tilt Normal	120°	4..5
	Pan Normal / Tilt Normal	180°	6..7
	Pan Normal / Tilt Normal	240°	8..9
	Pan Normal / Tilt Normal	300°	10..11
	Pan Normal / Tilt Inverted	0°	16..17
	Pan Normal / Tilt Inverted	60°	18..19
	Pan Normal / Tilt Inverted	120°	20..21
	Pan Normal / Tilt Inverted	180°	22..23
	Pan Normal / Tilt Inverted	240°	24..25
	Pan Normal / Tilt Inverted	300°	26..27
	Pan inverted / Tilt normal	0°	32..33
	Pan inverted / Tilt normal	60°	34..35
	Pan inverted / Tilt normal	120°	36..37

	Pan inverted / Tilt normal	180°	38..39
	Pan inverted / Tilt normal	240°	40..41
	Pan inverted / Tilt normal	300°	42..43
	Pan inverted / Tilt inverted	0°	48..49
	Pan inverted / Tilt inverted	60°	50..51
	Pan inverted / Tilt inverted	120°	52..53
	Pan inverted / Tilt inverted	180°	54..55
	Pan inverted / Tilt inverted	240°	56..57
	Pan inverted / Tilt inverted	300°	58..59
20 Pattern Effect	No effect		0..1
	crossfade		02..15
	random flash white	slow – fast	16..31
	random color	slow – fast	32..47
	random color background only	slow – fast	48..63
21 Beam Shaper (optional)	Beam Shaper position	0° - 540°	0..255
22 Pixel 1 Red	Color mixing system - Red	0 - 100%	0..255
23 Pixel 1 Green	Color mixing system - Green	0 - 100%	0..255
24 Pixel 1 Blue	Color mixing system - Blue	0 - 100%	0..255
25 Pixel 1 White	Color mixing system - White	0 - 100%	0..255
26 Pixel 2 Red	Color mixing system - Red	0 - 100%	0..255
27 Pixel 2 Green	Color mixing system - Green	0 - 100%	0..255
28 Pixel 2 Blue	Color mixing system - Blue	0 - 100%	0..255
29 Pixel 2 White	Color mixing system - White	0 - 100%	0..255
30 Pixel 3 Red	Color mixing system - Red	0 - 100%	0..255
31 Pixel 3 Green	Color mixing system - Green	0 - 100%	0..255
32 Pixel 3 Blue	Color mixing system - Blue	0 - 100%	0..255
33 Pixel 3 White	Color mixing system - White	0 - 100%	0..255
34 Pixel 4 Red	Color mixing system - Red	0 - 100%	0..255
35 Pixel 4 Green	Color mixing system - Green	0 - 100%	0..255
36 Pixel 4 Blue	Color mixing system - Blue	0 - 100%	0..255
37 Pixel 4 White	Color mixing system - White	0 - 100%	0..255
38 Pixel 5 Red	Color mixing system - Red	0 - 100%	0..255
39 Pixel 5 Green	Color mixing system - Green	0 - 100%	0..255
40 Pixel 5 Blue	Color mixing system - Blue	0 - 100%	0..255
41 Pixel 5 White	Color mixing system - White	0 - 100%	0..255
42 Pixel 6 Red	Color mixing system - Red	0 - 100%	0..255
43 Pixel 6 Green	Color mixing system - Green	0 - 100%	0..255
44 Pixel 6 Blue	Color mixing system - Blue	0 - 100%	0..255

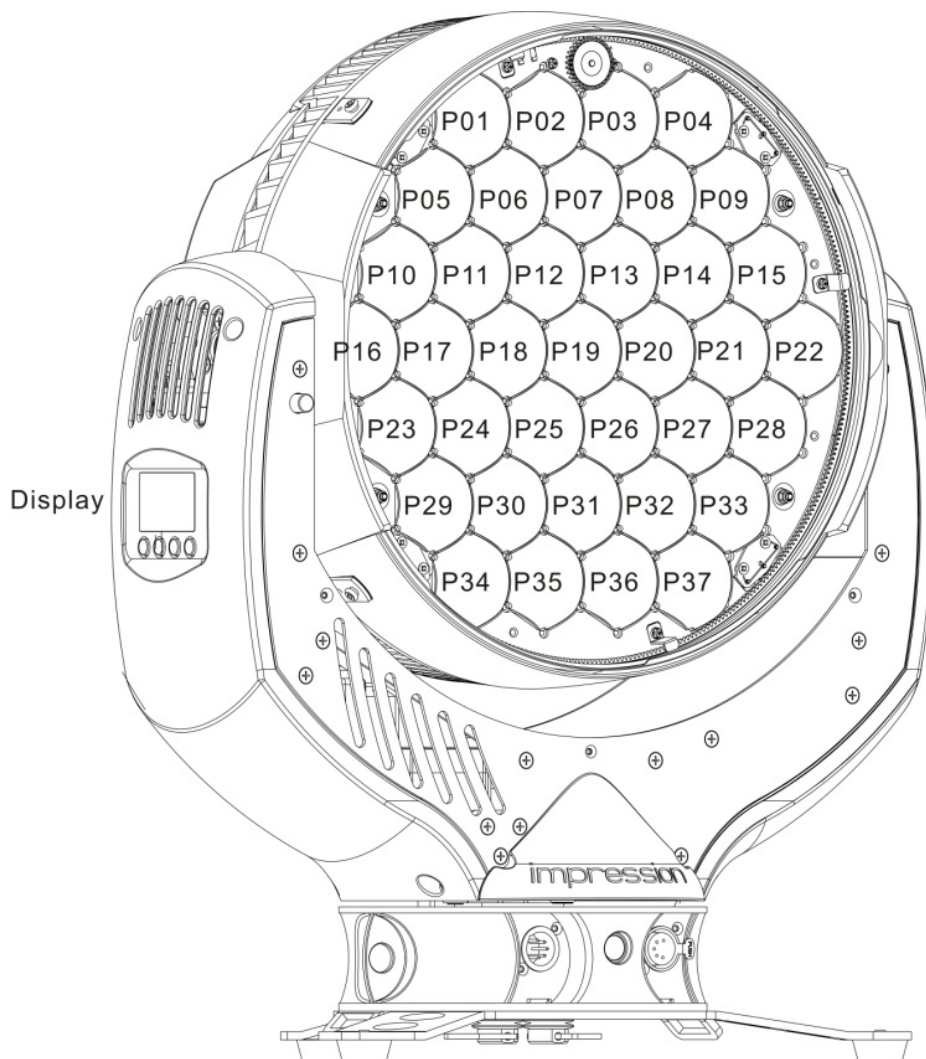
45 Pixel 6 White	Color mixing system - White	0 - 100%	0..255
46 Pixel 7 Red	Color mixing system - Red	0 - 100%	0..255
47 Pixel 7 Green	Color mixing system - Green	0 - 100%	0..255
48 Pixel 7 Blue	Color mixing system - Blue	0 - 100%	0..255
49 Pixel 7 White	Color mixing system - White	0 - 100%	0..255
50 Pixel 8 Red	Color mixing system - Red	0 - 100%	0..255
51 Pixel 8 Green	Color mixing system - Green	0 - 100%	0..255
52 Pixel 8 Blue	Color mixing system - Blue	0 - 100%	0..255
53 Pixel 8 White	Color mixing system - White	0 - 100%	0..255
54 Pixel 9 Red	Color mixing system - Red	0 - 100%	0..255
55 Pixel 9 Green	Color mixing system - Green	0 - 100%	0..255
56 Pixel 9 Blue	Color mixing system - Blue	0 - 100%	0..255
57 Pixel 9 White	Color mixing system - White	0 - 100%	0..255
58 Pixel 10 Red	Color mixing system - Red	0 - 100%	0..255
59 Pixel 10 Green	Color mixing system - Green	0 - 100%	0..255
60 Pixel 10 Blue	Color mixing system - Blue	0 - 100%	0..255
61 Pixel 10 White	Color mixing system - White	0 - 100%	0..255
62 Pixel 11 Red	Color mixing system - Red	0 - 100%	0..255
63 Pixel 11 Green	Color mixing system - Green	0 - 100%	0..255
64 Pixel 11 Blue	Color mixing system - Blue	0 - 100%	0..255
65 Pixel 11 White	Color mixing system - White	0 - 100%	0..255
66 Pixel 12 Red	Color mixing system - Red	0 - 100%	0..255
67 Pixel 12 Green	Color mixing system - Green	0 - 100%	0..255
68 Pixel 12 Blue	Color mixing system - Blue	0 - 100%	0..255
69 Pixel 12 White	Color mixing system - White	0 - 100%	0..255
70 Pixel 13 Red	Color mixing system - Red	0 - 100%	0..255
71 Pixel 13 Green	Color mixing system - Green	0 - 100%	0..255
72 Pixel 13 Blue	Color mixing system - Blue	0 - 100%	0..255
73 Pixel 13 White	Color mixing system - White	0 - 100%	0..255
74 Pixel 14 Red	Color mixing system - Red	0 - 100%	0..255
75 Pixel 14 Green	Color mixing system - Green	0 - 100%	0..255
76 Pixel 14 Blue	Color mixing system - Blue	0 - 100%	0..255
77 Pixel 14 White	Color mixing system - White	0 - 100%	0..255
78 Pixel 15 Red	Color mixing system - Red	0 - 100%	0..255
79 Pixel 15 Green	Color mixing system - Green	0 - 100%	0..255
80 Pixel 15 Blue	Color mixing system - Blue	0 - 100%	0..255
81 Pixel 15 White	Color mixing system - White	0 - 100%	0..255
82 Pixel 16 Red	Color mixing system - Red	0 - 100%	0..255

83 Pixel 16 Green	Color mixing system - Green	0 - 100%	0..255
84 Pixel 16 Blue	Color mixing system - Blue	0 - 100%	0..255
85 Pixel 16 White	Color mixing system - White	0 - 100%	0..255
86 Pixel 17 Red	Color mixing system - Red	0 - 100%	0..255
87 Pixel 17 Green	Color mixing system - Green	0 - 100%	0..255
88 Pixel 17 Blue	Color mixing system - Blue	0 - 100%	0..255
89 Pixel 17 White	Color mixing system - White	0 - 100%	0..255
90 Pixel 18 Red	Color mixing system - Red	0 - 100%	0..255
91 Pixel 18 Green	Color mixing system - Green	0 - 100%	0..255
92 Pixel 18 Blue	Color mixing system - Blue	0 - 100%	0..255
93 Pixel 18 White	Color mixing system - White	0 - 100%	0..255
94 Pixel 19 Red	Color mixing system - Red	0 - 100%	0..255
95 Pixel 19 Green	Color mixing system - Green	0 - 100%	0..255
96 Pixel 19 Blue	Color mixing system - Blue	0 - 100%	0..255
97 Pixel 19 White	Color mixing system - White	0 - 100%	0..255
98 Pixel 20 Red	Color mixing system - Red	0 - 100%	0..255
99 Pixel 20 Green	Color mixing system - Green	0 - 100%	0..255
100 Pixel 20 Blue	Color mixing system - Blue	0 - 100%	0..255
101 Pixel 20 White	Color mixing system - White	0 - 100%	0..255
102 Pixel 21 Red	Color mixing system - Red	0 - 100%	0..255
103 Pixel 21 Green	Color mixing system - Green	0 - 100%	0..255
104 Pixel 21 Blue	Color mixing system - Blue	0 - 100%	0..255
105 Pixel 21 White	Color mixing system - White	0 - 100%	0..255
106 Pixel 22 Red	Color mixing system - Red	0 - 100%	0..255
107 Pixel 22 Green	Color mixing system - Green	0 - 100%	0..255
108 Pixel 22 Blue	Color mixing system - Blue	0 - 100%	0..255
109 Pixel 22 White	Color mixing system - White	0 - 100%	0..255
110 Pixel 23 Red	Color mixing system - Red	0 - 100%	0..255
111 Pixel 23 Green	Color mixing system - Green	0 - 100%	0..255
112 Pixel 23 Blue	Color mixing system - Blue	0 - 100%	0..255
113 Pixel 23 White	Color mixing system - White	0 - 100%	0..255
114 Pixel 24 Red	Color mixing system - Red	0 - 100%	0..255
115 Pixel 24 Green	Color mixing system - Green	0 - 100%	0..255
116 Pixel 24 Blue	Color mixing system - Blue	0 - 100%	0..255
117 Pixel 24 White	Color mixing system - White	0 - 100%	0..255
118 Pixel 25 Red	Color mixing system - Red	0 - 100%	0..255
119 Pixel 25 Green	Color mixing system - Green	0 - 100%	0..255
120 Pixel 25 Blue	Color mixing system - Blue	0 - 100%	0..255

121 Pixel 25 White	Color mixing system - White	0 - 100%	0..255
122 Pixel 26 Red	Color mixing system - Red	0 - 100%	0..255
123 Pixel 26 Green	Color mixing system - Green	0 - 100%	0..255
124 Pixel 26 Blue	Color mixing system - Blue	0 - 100%	0..255
125 Pixel 26 White	Color mixing system - White	0 - 100%	0..255
126 Pixel 27 Red	Color mixing system - Red	0 - 100%	0..255
127 Pixel 27 Green	Color mixing system - Green	0 - 100%	0..255
128 Pixel 27 Blue	Color mixing system - Blue	0 - 100%	0..255
129 Pixel 27 White	Color mixing system - White	0 - 100%	0..255
130 Pixel 28 Red	Color mixing system - Red	0 - 100%	0..255
131 Pixel 28 Green	Color mixing system - Green	0 - 100%	0..255
132 Pixel 28 Blue	Color mixing system - Blue	0 - 100%	0..255
133 Pixel 28 White	Color mixing system - White	0 - 100%	0..255
134 Pixel 29 Red	Color mixing system - Red	0 - 100%	0..255
135 Pixel 29 Green	Color mixing system - Green	0 - 100%	0..255
136 Pixel 29 Blue	Color mixing system - Blue	0 - 100%	0..255
137 Pixel 29 White	Color mixing system - White	0 - 100%	0..255
138 Pixel 30 Red	Color mixing system - Red	0 - 100%	0..255
139 Pixel 30 Green	Color mixing system - Green	0 - 100%	0..255
140 Pixel 30 Blue	Color mixing system - Blue	0 - 100%	0..255
141 Pixel 30 White	Color mixing system - White	0 - 100%	0..255
142 Pixel 31 Red	Color mixing system - Red	0 - 100%	0..255
143 Pixel 31 Green	Color mixing system - Green	0 - 100%	0..255
144 Pixel 31 Blue	Color mixing system - Blue	0 - 100%	0..255
145 Pixel 31 White	Color mixing system - White	0 - 100%	0..255
146 Pixel 32 Red	Color mixing system - Red	0 - 100%	0..255
147 Pixel 32 Green	Color mixing system - Green	0 - 100%	0..255
148 Pixel 32 Blue	Color mixing system - Blue	0 - 100%	0..255
149 Pixel 32 White	Color mixing system - White	0 - 100%	0..255
150 Pixel 33 Red	Color mixing system - Red	0 - 100%	0..255
151 Pixel 33 Green	Color mixing system - Green	0 - 100%	0..255
152 Pixel 33 Blue	Color mixing system - Blue	0 - 100%	0..255
153 Pixel 33 White	Color mixing system - White	0 - 100%	0..255
154 Pixel 34 Red	Color mixing system - Red	0 - 100%	0..255
155 Pixel 34 Green	Color mixing system - Green	0 - 100%	0..255
156 Pixel 34 Blue	Color mixing system - Blue	0 - 100%	0..255
157 Pixel 34 White	Color mixing system - White	0 - 100%	0..255
158 Pixel 35 Red	Color mixing system - Red	0 - 100%	0..255

159 Pixel 35 Green	Color mixing system - Green	0 - 100%	0..255
160 Pixel 35 Blue	Color mixing system - Blue	0 - 100%	0..255
161 Pixel 35 White	Color mixing system - White	0 - 100%	0..255
162 Pixel 36 Red	Color mixing system - Red	0 - 100%	0..255
163 Pixel 36 Green	Color mixing system - Green	0 - 100%	0..255
164 Pixel 36 Blue	Color mixing system - Blue	0 - 100%	0..255
165 Pixel 36 White	Color mixing system - White	0 - 100%	0..255
166 Pixel 37 Red	Color mixing system - Red	0 - 100%	0..255
167 Pixel 37 Green	Color mixing system - Green	0 - 100%	0..255
168 Pixel 37 Blue	Color mixing system - Blue	0 - 100%	0..255
169 Pixel 37 White	Color mixing system - White	0 - 100%	0..255

The Pixel are numbered left to right / top to bottom 1 – 37 as shown below.
Tilt DMX Value = 0 & “Display” to the left:



- 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 L** will then start from that color and will execute the rainbow effect synchronously. Different **IMPRESSION X4 L** can have different start-colors but will still execute the rainbow effect synchronously. If you choose a color different from the ones 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 from the current color.
- ³⁾ The Rainbow-effect will run synchronously only if started from one of the predefined colors (see also ¹⁾ before).
- ⁴⁾ The background layer is only visible on the unlit pixel of the foreground layer if a pattern is applied.

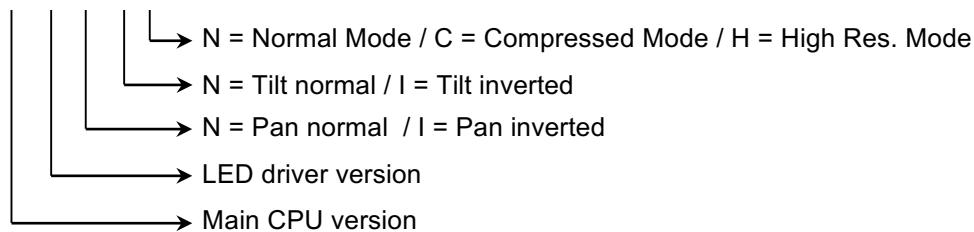
Locking and unlocking the Control Panel

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



6 Accessories

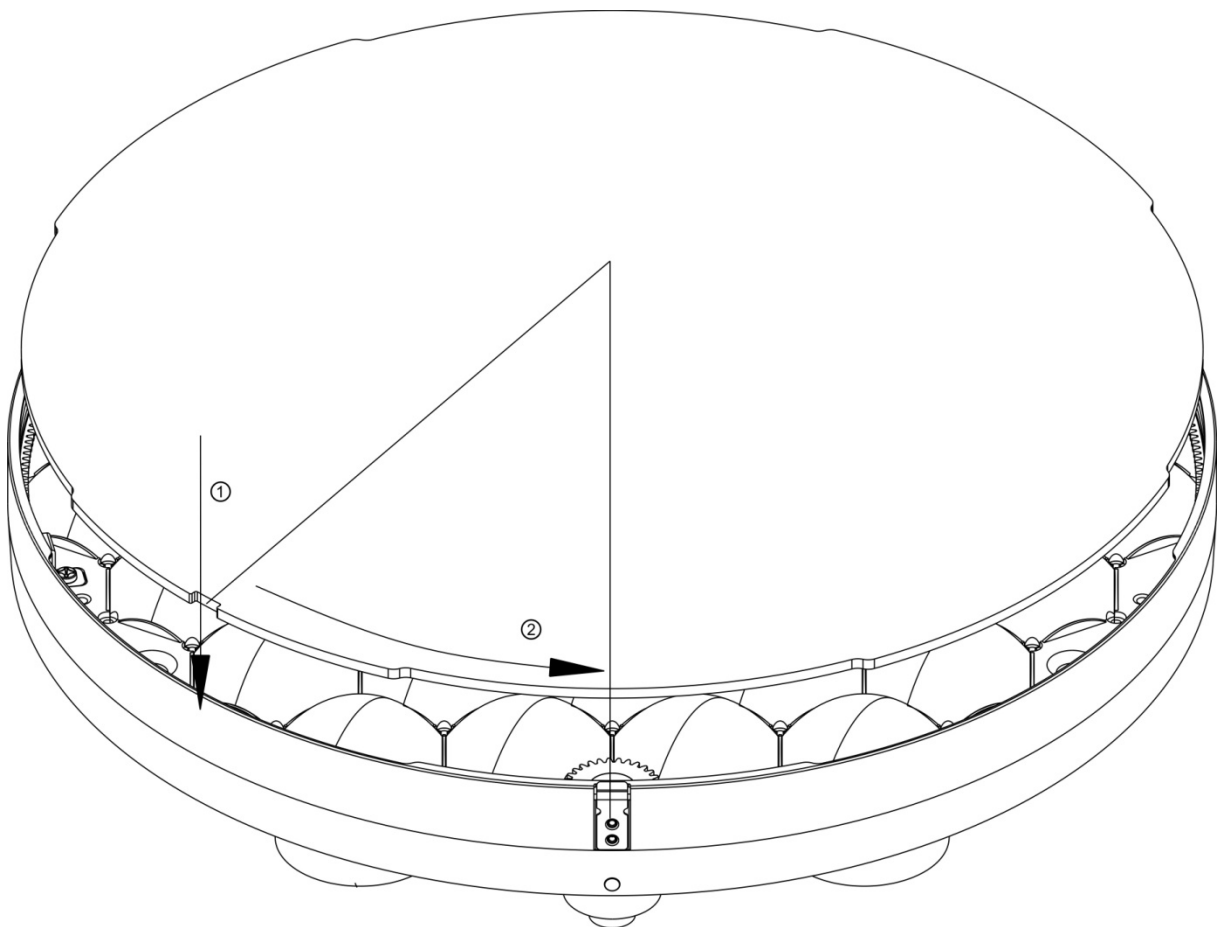
6.1 Optional Beam-Shaper:

The **IMPRESSION X4 L** can be equipped with an optional beam-shaper.

Please contact your local GLP dealer for further information about this accessory part.

To install the beam-shaper lens please locate the little cutout (see 1 below) and twist the lens carefully until the latch (see 2 below) locks in.

To remove the lens again simply pull the latch and twist the beam-shaper lens until you can lift it out of the fixture.



7 Maintaining and Cleaning

The **IMPRESSION X4 L** 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 to clean the lenses.



Attention:

Under no circumstances should alcohol or solvents be used to clean the lenses!

7.1 Safety regulations

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

7.2 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, fat, alcohol or similar solvents.**
- **Before running the fixture wait until all parts are dry.**
- **Never touch lenses with bare fingers.**

8 Technical Specifications:

Power supply	
Power consumption	900 VA (Watt)
Power Input	Auto sensing 100-240 V AC, 50-60 Hz
Fuse protection	Micro-fuse 5x20 mm, T10A
Operational Parameters	
Max. Ambient Temperature	5° - 45°C (integrated overheating switch) 40°-113°F
Mounting Position	Any (see relevant chapter)
Lighting System - Additive Color mixing	
LED Type	37 x Osram Ostar RGBW multi-chip
Lifetime	50,000 h
Wavelength optimized for maximum presentable color space	
Optical System	
Full RGBW / High efficient Collimator cluster Beam-Shaper – positionable and rotateable (optional)	
Shutter / Dimmer (8/16 Bit)	
Strobe- Effect with variable speed between 1-10 flashes per second, Random & Pulse-Effects Continuous Dimmer 0 - 100%	
Zoom	
7 to 50 degree continuous high speed zoom	
Optical Patterns	
Several hundred pre-defined beam patterns with direct access and manipulation. Free control of every pixel, color and intensity	
DMX Control	
Standard USITT DMX-512, 5 pin XLR: [+]=Pin 3 / [-]=Pin 2 / [Ground]=Pin 1 / Pin 4&5 N.C. The DMX- Addressing starts at the DMX channel [001].	
Pan / Tilt (8/16 Bit)	
Pan- movement	660° in min. 2 seconds (Position Feedback)
Tilt- movement	250° in min. 1 second (Position Feedback)
Weights and Measures	
Width	430 mm / 16.9''
Length	185 mm / 7.3''
Height (head vertical)	530 mm / 20.9'' (incl. standing foot/tripod)
Weight (net)	15.6 kg / 34.4 lbs
Weight (incl. tripod)	16.9 kg / 37.3 lbs

9 Dimensions

