Instruction Manual

impression[&]
X4 BAR

10

from software version: v0.60
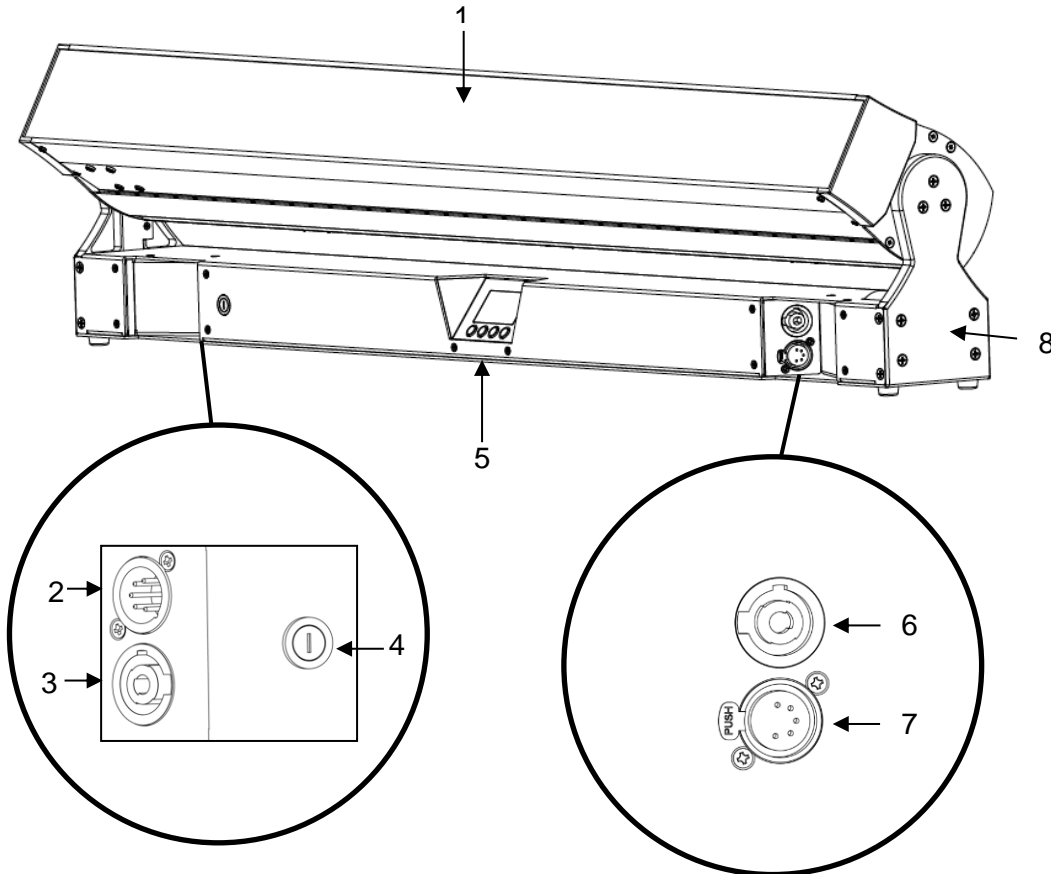
GLP

GERMAN LIGHT
P R O D U C T S

—— since 1994 ——

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www.glp.de

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2   Safety Instructions

⚠	The **IMPRESSION X4 Bar 10** 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 Bar 10** 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 Bar 10** 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.
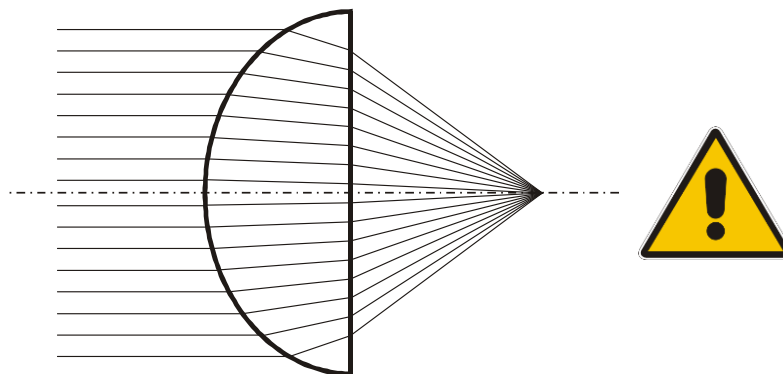
Should you have any questions about the operation of your fixture then please contact your local GLP office, or their authorized distributor, a list of which can be found at www.glp.de.

3 Mounting

The **IMPRESSION X4 Bar 10** 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.).
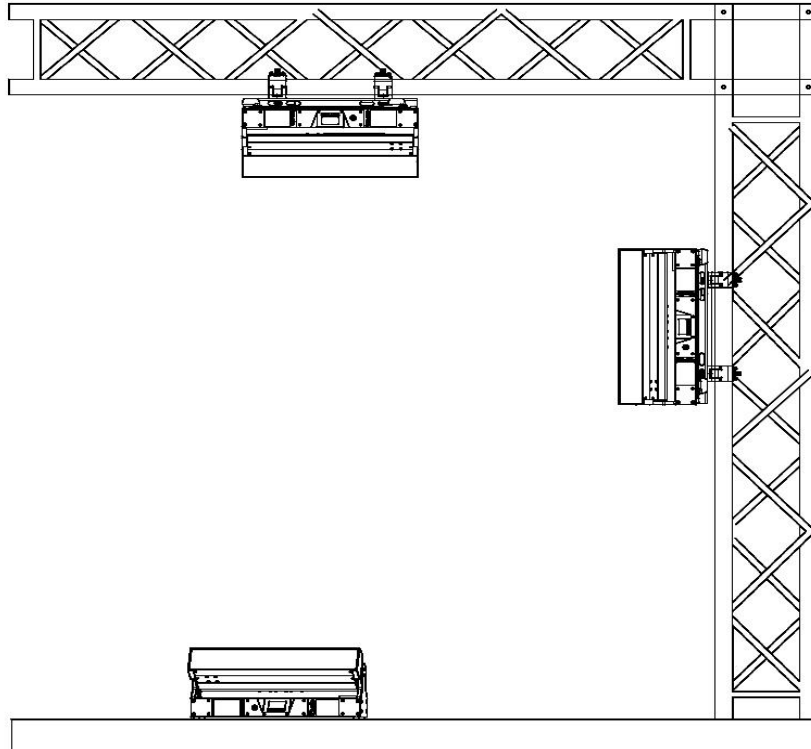
⚠	**Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217.** **The installation shall be done by qualified staff only.**

For the various mounting positions of the **IMPRESSION X4 Bar 10** (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.
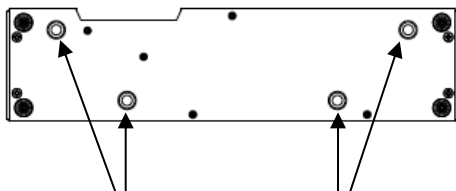
4 x Camlock for bracket

3.1.1 Operating on the Floor (Upright)

The **IMPRESSION X4 Bar 10** is fitted with 4x solid rubber feet which allows a stable standing of the fixture. An additional securing is usually not required. Please pay attention to an even and gripping surface.

3.1.2 Mounting in hanging or sideways position

To operate the **IMPRESSION X4 Bar 10** in a hanging position please use the dedicated bracket supplied with your fixture. It is fixed to the base of the fixture with fasteners called Camlock quick-release connectors. Insert the four fasteners and turn each 90° to lock them. Do the opposite to release them again.

3.2 Securing the Fixture

Regardless of the mounting method of the **IMPRESSION X4 Bar 10** you'll have to use a stipulated safety wire.

Attach the safety wire through the attachment point shown below and connect it to the primary support structure.

The safety attachment point can be deployed by simply swinging it out from the base.

Pay attention to a safe and proper fastening. The safety cable must comply with BGI 810-3 (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.
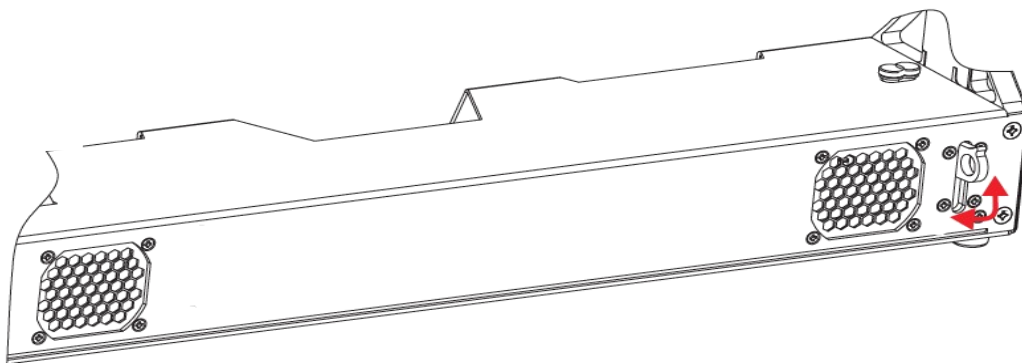
3.3 Alignment of the Fixtures

For precise and easy alignment of multiple fixtures the IMPRESSION X4 Bar 10 is equipped with alignment pins on the side.

To deploy them, simply slide them to the side and insert the pins in the related holes of the next fixture.

Push the knob down to slide the pins in again after every usage to avoid any damage or injuries that could be caused by them.
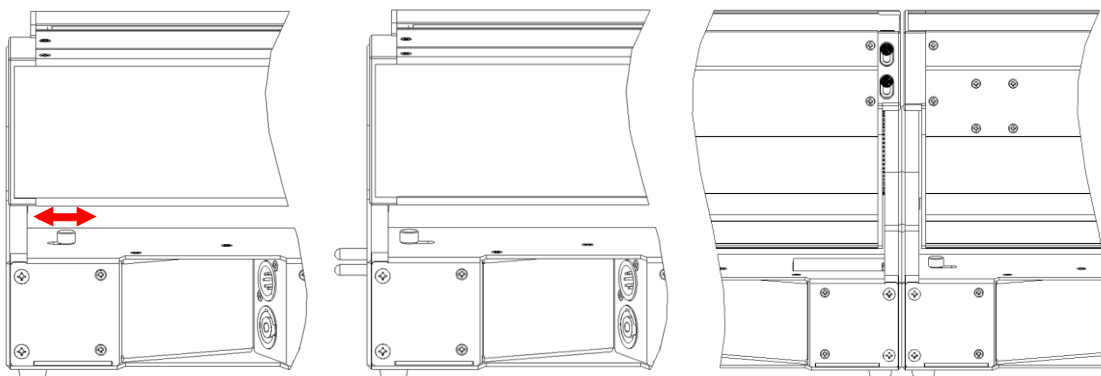
3.4 Connections

3.4.1 Power Supply

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

Connected load 200 VA (W) <=> T5A (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.

NEUTRIK® powerCON

The **IMPRESSION X4 Bar 10** is fitted with NEUTRIK® powerCON locking 3 conductor AC connectors.

The grey connector must be used to draw AC mains power from the fixtures` throughput sockets and the blue connectors must be used to supply power at the fixtures` power input socket.
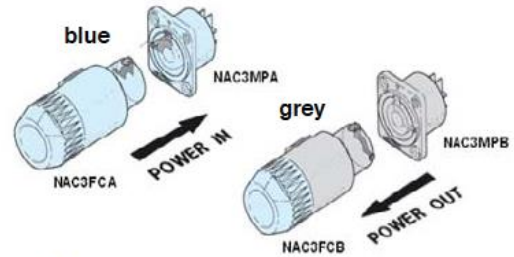
Picture: Courtesy of NEUTRIK® AG

The total number of fixtures in one interconnected chain depends on your local AC mains voltage but you must never connect more than a total load of 20A to stay within the limits of the connector. The total load includes all connected fixtures including the first one in the chain.

Note: The maximum allowed total - load is 20A including the first fixture in one interconnected daisy chain.

3.4.2 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 Bar**.

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.
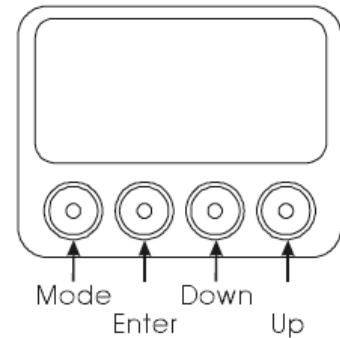
To lock or unlock the keys of the menu field press Mode + Enter + Up simultaneously.

← MODE - ENTER →

← DOWN – UP →

Level 1	Level 2	Level 3	Function
DMX Start Address 001			Set the DMX start address
Special	Set dimming mode	ESOFT	Set the dimming mode to extra-soft
		LIN	Set the dimming mode to linear
		SOFT	Set the dimming mode to soft
	DMX hold	On / Off	Enable / disable DMX hold when signal not present
	Silent mode	On / Off	Enable / disable Silent mode
	X4 compatibility	On / Off	Enable / disable X4 compatibility mode
	Test mode	On / Off	Enable / disable test program
	Set PWM frequency	1200	Set PWM frequency to 1200Hz
		600	Set PWM frequency to 600Hz
	Tilt reset	On / Off	Enable / disable Tilt movement for reset *
	Tilt current	On / Off	Enable / disable Tilt motor movement *
	Tilt slow	On / Off	Enable / disable slow Tilt speed *
	Default	OK	Reset all setting to default
	Temperature head		Read out the current temperature of the head in °C
	Temperature base		Read out the current temperature of the base in °C
	Boot count		Reset counter
	Fixture hours		Lifetime counter
	Adjust	Key Code	Internal adjustments for trained personnel only
Set DMX Mode	NORM		Set DMX mode to Normal
	SPIX		Set DMX mode to Single Pixel
	DPIXH		Set DMX mode to Dual Pixel High Resolution
	SPIXH		Set DMX mode to Single Pixel High Resolution
	DPIX		Set DMX mode to Dual Pixel
	HIRES		Set DMX mode to High Resolution
	COMP		Set DMX mode to Compressed
Position feedback	On / Off		Enable / disable position feedback function
Reverse tilt	On / Off		Enable / disable inverted Tilt movement
Reverse pixel	On / Off		Enable / disable inverted pixel count
Reverse zoom	On / Off		Enable / disable inverted zoom movement
Display flip	On / Off		Enable / disable Display orientation
Reset	OK		RESET and new calibration for all functions

* Requires Tilt Firmware V.20 or later. For further information please contact your local GLP dealer or GLP support center.

5 Programing Notes

The **IMPRESSION X4 Bar's** unique layer effect system allows for a wide array of dynamic pattern effects using a minimum of DMX Channels. The example below demonstrates how to program Set Layers in **Normal Mode** to show how the layer system works.

5.1 Guide to the Set Layers

A "Set Layer" is a group of control parameters such as color, intensity, and pattern. A lower layer is revealed when a pattern is applied to the layer above it. Applying a pattern to layer 1 reveals layer 2. Applying a pattern to layer 2 reveals layer 3. In other words, Set Layer 1 is on top and has the highest priority. Set Layer 2 is in the middle and has priority over Set Layer 3. Set Layer 3 is on the bottom and has the lowest priority.

Set Layer 1 and Set Layer 2 provide control of Color Wheel, Red, Green, Blue, White, Intensity, Pattern Select, and Pattern Movement. Set Layer 3 provides control of Color Wheel, Red, Green, Blue, White, and Intensity.

The Shutter and Master Intensity channels control all three Set Layers. Crossfade allows for fade instead of snap in Set Layer Movement Effects. The Star Effect randomly strobes all pixels.

Pixel Select 1-8 and Pixel Select 9-10 are for custom patterns. They apply only to Set Layer 1 when Pattern Select is at DMX value 255.

5.2 Example of Set Layer Programing

Example notes:

- Fixture libraries from different console manufacturers vary on how channels are patched to attributes. Some console libraries require that the fixture be a multi-part fixture. Please check with the console manufacture or console fixture library editor to verify the correct channel patch and layout.
- The channel numbers in parentheses apply to the Normal Mode DMX chart. All values are in 8-bit DMX.
- In this example, Set Layer 1 is red, Set Layer 2 is green, and Set Layer 3 is blue.

For an example of Set Layer programming, proceed as follows:

1. Patch the fixture to a Normal Mode library and verify that the fixture is set to Normal Mode. Select the fixture.
2. Choose the Shutter Channel (11) and take to value 255.
3. Choose the Master Intensity Channel (12) and take to value 255.
4. Choose Set 1 Red (6) and take to value 255.
5. Choose Set 1 Intensity (10) and take to value 255. All the pixels should be red.
6. Choose Set 1 Pattern Select (28) and take to value 8. This pattern reveals Set Layer 2 on pixels 6-10. Pixels 1-5 should be red and 6-10 should be blacked out:

7. Choose Set 2 Green (16) and take to value 255.

8. Choose Set 2 Intensity (19) and take to value 255. Pixels 1-5 should be red and 6-10 should now be green:

9. Choose Set 2 Pattern Select (30) and take to value 13. This pattern reveals Set Layer 3 on pixels 9 & 10. Pixels 1-5 should be red, pixels 6-8 should be green, and pixels 9 & 10 should be blacked out:

Note: The value on Set 2 Pattern Select activates pixels 1-8. Pixels 1-5 remain red because Set Layer 1 is on top and has precedence over Set Layer 2. If you take Set 1 Pattern Select (28) to value 0, no pattern is applied to the top layer. Set Layers 2 and 3 will be hidden and all pixels will be red.

10. Choose Set 3 Blue (23) and take to value 255.

11. Choose Set 3 Intensity (25) and take to value 255. Pixels 1-5 should be red, pixels 6-8 should be green, and pixels 9 & 10 should be blue:

12. Choose Set 1 Pattern Movement (29) and take to value 170. The red pixels at 1-5 chase from left to right, leaving static green in pixels 1-8, and static blue in pixels 9 & 10.

13. Choose Set 2 Pattern Movement (31) and take to value 190. The green pixels chase from right to left, the red pixels chase left to right, and the blue pixels remain static in the background.

14. Choose Crossfade (26) to affect the fading from color to color within the Set Layers.

15. Choose Star Effect (27) to strobe each individual pixel randomly.

6 DMX Chanel Selection (DMX Protocol)

Seven DMX modes are available to suit different applications and preferences:

- *Normal Mode (33 Channels):* Most common mode with all basic functions. See page 13.

- *Compressed Mode (19 Channels):* Limited channel mode. Channels are sorted to match the Impression X4 normal mode. See page 14.

- *High Resolution Mode (34 Channels):* Same as Normal Mode but with 16-bit master dimming. See page 15.

- *Single Pixel Mode (48 Channels):* Individual control of the RGBW values for each pixel, which allows for pixel mapping. See page 16.

- *Single Pixel High Resolution Mode (49 Channels):* Same as the Single Pixel Mode but with 16-bit master dimming. See page 17.

- *Dual Pixel Mode (28 Channels):* Similar to Single Pixel Mode but with 2 pixel combined as one to reduce the channel count. See page 18.

- *Dual Pixel High Resolution Mode (29 Channels):* Same as the Dual Pixel Mode but with 16-bit master dimming. See page 19.

6.1 Notes on DMX Functions

[1] Indicates start colors for the rainbow effect. If you select one of these colors before activating the rainbow effect, all **IMPRESSION X4 Bars** will start from that color and execute the rainbow effect synchronously. **IMPRESSION X4 Bars** with other indicated start colors will also execute the rainbow effect synchronously. If you select a color that is not defined as a rainbow effect start color, the rainbow effect starts with red.

[2] Pauses rainbow effect. After resuming, the effect continues from the current color.

[3] Starts rainbow effect. The effect runs synchronously if started from one of the defined start colors. See note 1, above.

[4] Set 2 values are visible only when a pattern is applied to Set 1. Set 3 values are visible only when patterns are applied to Sets 1 and 2.

Pixels are numbered 1-10 from left to right as shown below. Note: The head is tipped forward (DMX value = 0), the display is in front, and the input sockets are on the left.

Power /   Display   Power /
DMX In   DMX Out
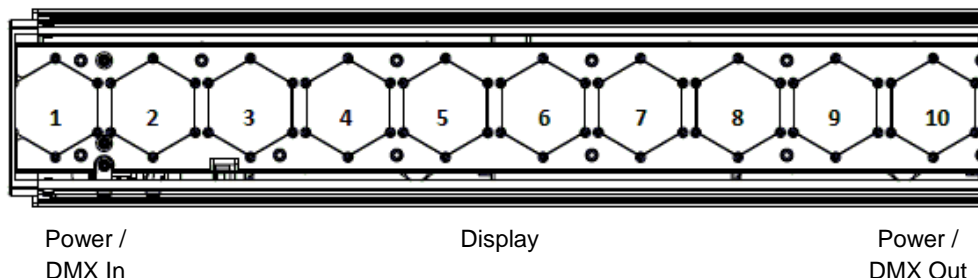
6.2 Normal Mode (norm) 33 DMX channels

Channel			Function	Time and Value	DMX
1	**Tilt - High**		Tilt coarse	0° - 210°	0..255
2	**Tilt - Low**		Tilt fine		0..255
3	**Zoom**		Wide (flood) - narrow (spot)	50° - 7°	0..255
4	**CTO**		No CTO		0..7
			Continuous color temperature correction	Applies to ALL colors	8..255
5	**Set 1 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	**Set 1**	**Blue**	Color mixing system - Blue	0 - 100%	0..255
9		**White**	Color mixing system - White	0 - 100%	0..255
10		**Intensity**	Intensity	0 - 100%	0..255
11	**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
12	**Intensity**		Intensity	0 - 100%	0..255
13	**Special**		See special functions on page 20	-	-
14		**Color**	Values see Channel 5	-	-
15		**Red**	Color mixing system - Red	0 - 100%	0..255
16	**Set 2** [4]	**Green**	Color mixing system - Green	0 - 100%	0..255
17		**Blue**	Color mixing system - Blue	0 - 100%	0..255
18		**White**	Color mixing system - White	0 - 100%	0..255
19		**Intensity**	Intensity	0 - 100%	0..255
20		**Color**	Values see Channel 5	-	-
21		**Red**	Color mixing system - Red	0 - 100%	0..255
22	**Set 3** [4]	**Green**	Color mixing system - Green	0 - 100%	0..255
23		**Blue**	Color mixing system - Blue	0 - 100%	0..255
24		**White**	Color mixing system - White	0 - 100%	0..255
25		**Intensity**	Intensity	0 - 100%	0..255
26	**Crossfade**		0..2 seconds transition time		0..255
27	**Star Effect**		Random internal shutter effect	slow – fast	0..255
28	**Set 1**	**Pattern Select**			0..255
29		**Pattern Movement**			0..255
30	**Set 2** [4]	**Pattern Select**			0..255
31		**Pattern Movement**			0..255
32	**Pixel Select 1 - 8**				0..255
33	**Pixel Select 9 - 10**				0..255

6.3 Compressed Mode (comp) 19 DMX Channels

Channel			Function	Time and Value	DMX
1	**None**		reserved		-
2	**None**		reserved		-
3	**Tilt - High**		Tilt coarse	0° - 210°	0..255
4	**Tilt - Low**		Tilt fine		0..255
5	**Set 1 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	**Set 1**	**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	Applies to ALL colors	8..255
13	**Special**		See special functions on page 20	-	-
14	**Crossfade**		0..2 seconds transition time		0..255
15	**Set 1 Pattern Movement**				0..255
16	**Zoom**		Wide (flood) - narrow (spot)	50° - 7°	0..255
17	**Set 1 Pattern**				0..255
18	**Pixel Select 1 - 8**				0..255
19	**Pixel Select 9 - 10**				0..255

6.4   High Resolution Mode (Hires) 34 DMX Channels

Channel			Function	Time and Value	DMX
1	Tilt - High		Tilt coarse	0° - 210°	0..255
2	Tilt - Low		Tilt fine		0..255
3	Zoom		Wide (flood) - narrow (spot)	50° - 7°	0..255
4	CTO		No CTO		0..7
			Continuous color temperature correction	Applies to ALL colors	8..255
5	Set 1 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	Set 1	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		Intensity	Intensity	0 - 100%	0..255
11	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
12	Intensity - High		Intensity - coarse	0 - 100%	0..255
13	Intensity - Low		Intensity - fine	-	0..255
14	Special		See special functions on page 20	-	-
15	Set 2 [4]	Color	Values see Channel 5	-	-
16		Red	Color mixing system - Red	0 - 100%	0..255
17		Green	Color mixing system - Green	0 - 100%	0..255
18		Blue	Color mixing system - Blue	0 - 100%	0..255
19		White	Color mixing system - White	0 - 100%	0..255
20		Intensity	Intensity	0 - 100%	0..255
21	Set 3 [4]	Color	Values see Channel 5	-	-
22		Red	Color mixing system - Red	0 - 100%	0..255
23		Green	Color mixing system - Green	0 - 100%	0..255
24		Blue	Color mixing system - Blue	0 - 100%	0..255
25		White	Color mixing system - White	0 - 100%	0..255
26		Intensity	Intensity	0 - 100%	0..255
27	Crossfade		0..2 seconds transition time		0..255
28	Star Effect		Random internal shutter effect	slow – fast	0..255
29	Set 1	Pattern Select			0..255
30		Pattern Movement			0..255
31	Set 2 [4]	Pattern Select			0..255
32		Pattern Movement			0..255
33	Pixel Select 1 - 8				0..255
34	Pixel Select 9 - 10				0..255

6.5   Single Pixel Mode (spix) 48 DMX Channels

Channel			Function	Time and Value	DMX
1	Tilt - High		Tilt coarse	0° - 210°	0..255
2	Tilt - Low		Tilt fine		0..255
3	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
4	Intensity		Intensity	0 - 100%	0..255
5	CTO		No CTO		0..7
			Continuous color temperature correction	Applies to ALL colors	8..255
6	Special		See special functions on page 20	-	-
7	Crossfade		0..2 seconds transition time		0..255
8	Zoom		Wide (flood) - narrow (spot)	50° - 7°	0..255
9	Pixel 1	Red	Color mixing system - Red	0 - 100%	0..255
10		Green	Color mixing system - Green	0 - 100%	0..255
11		Blue	Color mixing system - Blue	0 - 100%	0..255
12		White	Color mixing system - White	0 - 100%	0..255
13	Pixel 2	Red	Color mixing system - Red	0 - 100%	0..255
14		Green	Color mixing system - Green	0 - 100%	0..255
15		Blue	Color mixing system - Blue	0 - 100%	0..255
16		White	Color mixing system - White	0 - 100%	0..255
17	Pixel 3	Red	Color mixing system - Red	0 - 100%	0..255
18		Green	Color mixing system - Green	0 - 100%	0..255
19		Blue	Color mixing system - Blue	0 - 100%	0..255
20		White	Color mixing system - White	0 - 100%	0..255
21	Pixel 4	Red	Color mixing system - Red	0 - 100%	0..255
22		Green	Color mixing system - Green	0 - 100%	0..255
23		Blue	Color mixing system - Blue	0 - 100%	0..255
24		White	Color mixing system - White	0 - 100%	0..255
25	Pixel 5	Red	Color mixing system - Red	0 - 100%	0..255
26		Green	Color mixing system - Green	0 - 100%	0..255
27		Blue	Color mixing system - Blue	0 - 100%	0..255
28		White	Color mixing system - White	0 - 100%	0..255
29	Pixel 6	Red	Color mixing system - Red	0 - 100%	0..255
30		Green	Color mixing system - Green	0 - 100%	0..255
31		Blue	Color mixing system - Blue	0 - 100%	0..255
32		White	Color mixing system - White	0 - 100%	0..255
33	Pixel 7	Red	Color mixing system - Red	0 - 100%	0..255
34		Green	Color mixing system - Green	0 - 100%	0..255
35		Blue	Color mixing system - Blue	0 - 100%	0..255
36		White	Color mixing system - White	0 - 100%	0..255
37	Pixel 8	Red	Color mixing system - Red	0 - 100%	0..255
38		Green	Color mixing system - Green	0 - 100%	0..255
39		Blue	Color mixing system - Blue	0 - 100%	0..255
40		White	Color mixing system - White	0 - 100%	0..255
41	Pixel 9	Red	Color mixing system - Red	0 - 100%	0..255
42		Green	Color mixing system - Green	0 - 100%	0..255
43		Blue	Color mixing system - Blue	0 - 100%	0..255
44		White	Color mixing system - White	0 - 100%	0..255
45	Pixel 10	Red	Color mixing system - Red	0 - 100%	0..255
46		Green	Color mixing system - Green	0 - 100%	0..255
47		Blue	Color mixing system - Blue	0 - 100%	0..255
48		White	Color mixing system - White	0 - 100%	0..255

6.6 Single Pixel High Resolution Mode (SPixH) 49 DMX Channels

Channel			Function	Time and Value	DMX
1	Tilt - High		Tilt coarse	0° - 210°	0..255
2	Tilt - Low		Tilt fine		0..255
3	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
4	Intensity - High		Intensity - coarse	0 - 100%	0..255
5	Intensity - Low		Intensity - fine	-	0..255
6	CTO		No CTO		0..7
			Continuous color temperature correction	Applies to ALL colors	8..255
7	Special		See special functions on page 20	-	-
8	Crossfade		0..2 seconds transition time		0..255
9	Zoom		Wide (flood) - narrow (spot)	50° - 7°	0..255
10	Pixel 1	Red	Color mixing system - Red	0 - 100%	0..255
11		Green	Color mixing system - Green	0 - 100%	0..255
12		Blue	Color mixing system - Blue	0 - 100%	0..255
13		White	Color mixing system - White	0 - 100%	0..255
14	Pixel 2	Red	Color mixing system - Red	0 - 100%	0..255
15		Green	Color mixing system - Green	0 - 100%	0..255
16		Blue	Color mixing system - Blue	0 - 100%	0..255
17		White	Color mixing system - White	0 - 100%	0..255
18	Pixel 3	Red	Color mixing system - Red	0 - 100%	0..255
19		Green	Color mixing system - Green	0 - 100%	0..255
20		Blue	Color mixing system - Blue	0 - 100%	0..255
21		White	Color mixing system - White	0 - 100%	0..255
22	Pixel 4	Red	Color mixing system - Red	0 - 100%	0..255
23		Green	Color mixing system - Green	0 - 100%	0..255
24		Blue	Color mixing system - Blue	0 - 100%	0..255
25		White	Color mixing system - White	0 - 100%	0..255
26	Pixel 5	Red	Color mixing system - Red	0 - 100%	0..255
27		Green	Color mixing system - Green	0 - 100%	0..255
28		Blue	Color mixing system - Blue	0 - 100%	0..255
29		White	Color mixing system - White	0 - 100%	0..255
30	Pixel 6	Red	Color mixing system - Red	0 - 100%	0..255
31		Green	Color mixing system - Green	0 - 100%	0..255
32		Blue	Color mixing system - Blue	0 - 100%	0..255
33		White	Color mixing system - White	0 - 100%	0..255
34	Pixel 7	Red	Color mixing system - Red	0 - 100%	0..255
35		Green	Color mixing system - Green	0 - 100%	0..255
36		Blue	Color mixing system - Blue	0 - 100%	0..255
37		White	Color mixing system - White	0 - 100%	0..255
38	Pixel 8	Red	Color mixing system - Red	0 - 100%	0..255
39		Green	Color mixing system - Green	0 - 100%	0..255
40		Blue	Color mixing system - Blue	0 - 100%	0..255
41		White	Color mixing system - White	0 - 100%	0..255
42	Pixel 9	Red	Color mixing system - Red	0 - 100%	0..255
43		Green	Color mixing system - Green	0 - 100%	0..255
44		Blue	Color mixing system - Blue	0 - 100%	0..255
45		White	Color mixing system - White	0 - 100%	0..255
46	Pixel 10	Red	Color mixing system - Red	0 - 100%	0..255
47		Green	Color mixing system - Green	0 - 100%	0..255
48		Blue	Color mixing system - Blue	0 - 100%	0..255
49		White	Color mixing system - White	0 - 100%	0..255

6.7   Dual Pixel Mode (dpix) 28 DMX Channels

Channel			Function	Time and Value	DMX
1	Tilt - High		Tilt coarse	0° - 210°	0..255
2	Tilt - Low		Tilt fine		0..255
3	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
4	Intensity		Intensity	0 - 100%	0..255
5	CTO		No CTO		0..7
			Continuous color temperature correction	Applies to ALL colors	8..255
6	Special		See special functions on page 20	-	-
7	Crossfade		0..2 seconds transition time		0..255
8	Zoom		Wide (flood) - narrow (spot)	50° - 7°	0..255
9	Pixel 1&2	Red	Color mixing system - Red	0 - 100%	0..255
10		Green	Color mixing system - Green	0 - 100%	0..255
11		Blue	Color mixing system - Blue	0 - 100%	0..255
12		White	Color mixing system - White	0 - 100%	0..255
13	Pixel 3&4	Red	Color mixing system - Red	0 - 100%	0..255
14		Green	Color mixing system - Green	0 - 100%	0..255
15		Blue	Color mixing system - Blue	0 - 100%	0..255
16		White	Color mixing system - White	0 - 100%	0..255
17	Pixel 5&6	Red	Color mixing system - Red	0 - 100%	0..255
18		Green	Color mixing system - Green	0 - 100%	0..255
19		Blue	Color mixing system - Blue	0 - 100%	0..255
20		White	Color mixing system - White	0 - 100%	0..255
21	Pixel 7&8	Red	Color mixing system - Red	0 - 100%	0..255
22		Green	Color mixing system - Green	0 - 100%	0..255
23		Blue	Color mixing system - Blue	0 - 100%	0..255
24		White	Color mixing system - White	0 - 100%	0..255
25	Pixel 9&10	Red	Color mixing system - Red	0 - 100%	0..255
26		Green	Color mixing system - Green	0 - 100%	0..255
27		Blue	Color mixing system - Blue	0 - 100%	0..255
28		White	Color mixing system - White	0 - 100%	0..255

6.8 Dual Pixel High Resolution Mode (DPixH) 29 DMX Channels

Channel			Function	Time and Value	DMX
1	Tilt - High		Tilt coarse	0° - 210°	0..255
2	Tilt - Low		Tilt fine		0..255
3	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
4	Intensity - High		Intensity - coarse	0 - 100%	0..255
5	Intensity - Low		Intensity - fine	-	0..255
6	CTO		No CTO		0..7
			Continuous color temperature correction	Applies to ALL colors	8..255
7	Special		See special functions on page 20	-	-
8	Crossfade		0..2 seconds transition time		0..255
9	Zoom		Wide (flood) - narrow (spot)	50° - 7°	0..255
10	Pixel 1&2	Red	Color mixing system - Red	0 - 100%	0..255
11		Green	Color mixing system - Green	0 - 100%	0..255
12		Blue	Color mixing system - Blue	0 - 100%	0..255
13		White	Color mixing system - White	0 - 100%	0..255
14	Pixel 3&4	Red	Color mixing system - Red	0 - 100%	0..255
15		Green	Color mixing system - Green	0 - 100%	0..255
16		Blue	Color mixing system - Blue	0 - 100%	0..255
17		White	Color mixing system - White	0 - 100%	0..255
18	Pixel 5&6	Red	Color mixing system - Red	0 - 100%	0..255
19		Green	Color mixing system - Green	0 - 100%	0..255
20		Blue	Color mixing system - Blue	0 - 100%	0..255
21		White	Color mixing system - White	0 - 100%	0..255
22	Pixel 7&8	Red	Color mixing system - Red	0 - 100%	0..255
23		Green	Color mixing system - Green	0 - 100%	0..255
24		Blue	Color mixing system - Blue	0 - 100%	0..255
25		White	Color mixing system - White	0 - 100%	0..255
26	Pixel 9&10	Red	Color mixing system - Red	0 - 100%	0..255
27		Green	Color mixing system - Green	0 - 100%	0..255
28		Blue	Color mixing system - Blue	0 - 100%	0..255
29		White	Color mixing system - White	0 - 100%	0..255

6.9 Special Functions Channel, All Modes

Function	Notes	Saved	DMX
Special functions off	Normal color mixing and priority.	no	0..3
Reverse color priority	Not available in SPix, DPix, SPixH, or DPixH modes.	no	4..7
Reverse color mixing		no	8..11
To execute following commands, take special functions channel to DMX value 0, then set and hold function value 3 for seconds.			
Tilt slow mode off	Set shutter to 48..49 and intensity to 50..59 (12800..15104 at high resolution). Requires Tilt Firmware V.20 or later.[1]	yes	120..123
Tilt slow mode on		yes	124..127
Tilt current off		yes	128..131
Tilt current on		yes	132..135
Tilt reset off		yes	136..139
Tilt reset on		yes	140..143
Display Flip off		yes	144..147
Display Flip on		yes	148..151
DMX Mode DPixH (HiRes)	Set shutter to 48..49 and intensity to 50..59 (12800..15104 at high resolution)	yes	152..155
DMX Mode SPixH (HiRes)		yes	156..159
DMX Mode High Resolution		yes	160..163
DMX Mode Normal		yes	164..167
DMX Mode Compressed		yes	168..171
DMX Mode DPix		yes	172..175
DMX Mode SPix		yes	176..179
Dimmer Curve ESoft		yes	180..183
Dimmer Curve Soft		yes	184..187
Dimmer Curve Lin		yes	188..191
X4 Compatibility off		yes	192..195
X4 Compatibility on		yes	196..199
Silent-Mode off		yes	200..203
Silent-Mode on		yes	204..207
Position Feedback off		yes	208..211
Position Feedback on		yes	212..215
DMX holf off		yes	216..219
DMX hold on		yes	220..223
Tilt inverse off		yes	224..227
Tilt inverse on		yes	228..231
Pixel inverse off		yes	232..235
Pixel inverse on		yes	236..239
Zoom inverse off		yes	240..243
Zoom inverse on		yes	244..247
Fixture default	Set shutter to 48..49 and intensity to 50..59 (12800..15104 at high resolution)	yes	248..251
Fixture reset		no	252..255

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[1] For further information please contact your local GLP dealer or GLP support center.

7   Accessories

7.1   Optional diffuser filter:

The clear acrylic front cover is exchangeable with different diffusion or frost filters.

A diffusion filter with 3° vertical & 30° horizontal spread is already included with your **impression X4 Bar 10**.

For other filter options please contact your local GLP dealer.

To remove the installed cover pull down the latch shown below and pull the filter out.

To insert the new filter pull the latch down again and slide in the new filter until fully inserted, then release the latch to secure the new filter.
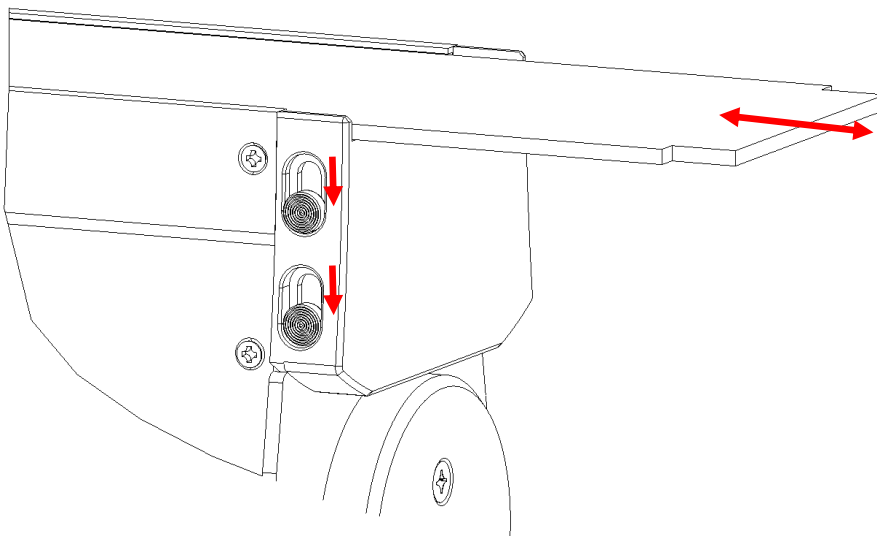
8 Maintaining and Cleaning

The **IMPRESSION X4 Bar 10** 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 <u>no</u> circumstances should alcohol or solvents be used to clean the lenses!**

8.1 Safety regulations

- **Pull out the mains power plug!**

- Wait min. 15 minutes after disconnecting power to allow the fixture to cool down.

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

9 Technical Specifications:

Power supply	
Power consumption	200 VA (Watt)
Power Input	Auto sensing 100-240 V AC, 50-60 Hz
Fuse protection	Micro-fuse 5x20 mm, T5A
Operational Parameters	
Max. Ambient Temperature	5° - 45°C (integrated overheating switch) 40°-113°F
Mounting Position	Any (see relevant chapter in the manual)
Lighting System - Additive Color mixing	
LED Type	10 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 Exchangeable diffuser filters available (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 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].	
Tilt (8/16 Bit)	
Tilt- movement	**210° in min. 1.5 seconds (Position Feedback)**
Weights and Measures	
Length	**500 mm / 19.7´´**
Width	**100 mm / 3.9´´**
Height	**240 mm / 9.4´´**
Weight (net)	**8.0 kg / 17.6 lbs**
Weight with bracket	**9.8 kg / 21.6 lbs**

10 Dimensions

500

100

230

299

356