Instruction Manual

impression

X4 Bar 20

from software version: v0.26
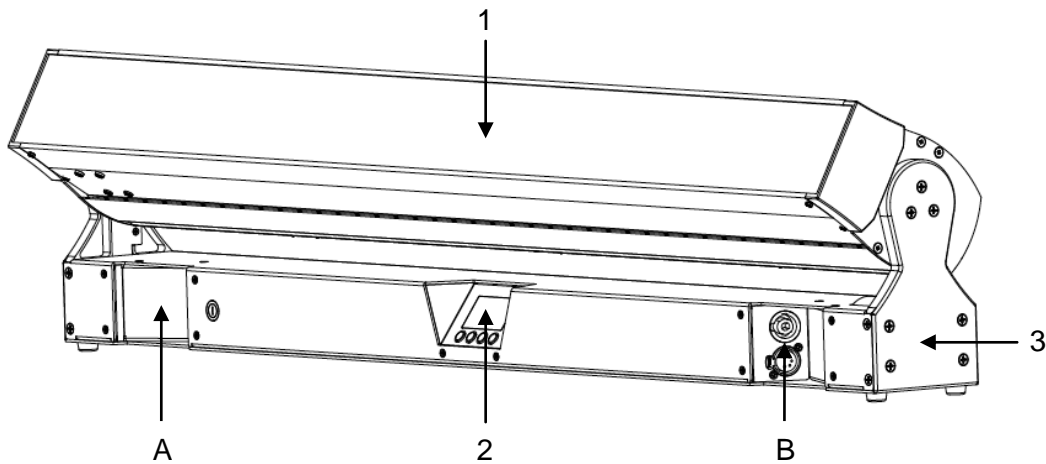
GLP

GERMAN LIGHT
PRODUCTS

—— since 1994 ——

support@glp.de
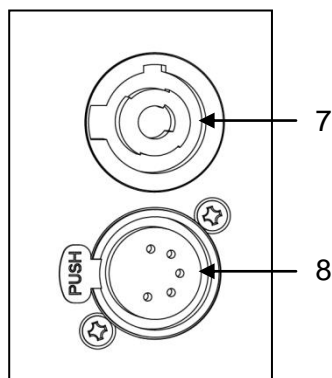www.glp.de

Contents

1   Description of Device

1. Moving Bar (actively and passively cooled)

2. LCD-Display / Menu (data entry)

3. Base with rubber feet and Camlock mounting system

A) Base side left
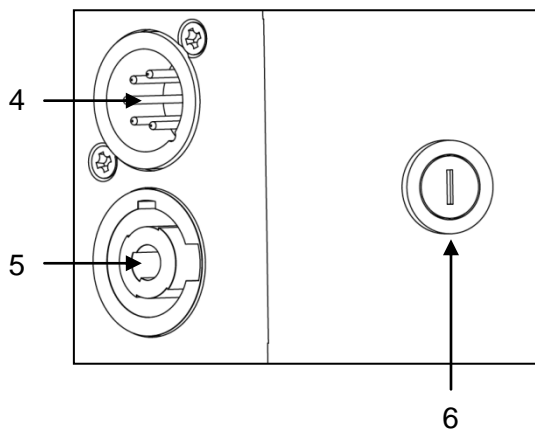
4. DMX Input (5 pin)

5. Mains Input (blue powerCON)

6. Micro-fuse 5x20mm, T5A

B) Base side right

7. Mains Output (white powerCON)

8. DMX Output (5 pin)

1.1 Safety Instructions

> The **IMPRESSION X4 Bar 20** 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.

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.   **-- Danger of BURNING --**

6. **Never look directly into the beam of light or into one of the LEDs.** Never use optical apertures to observe the beam of light. **LED Class 2M.** You'll risk serious injury of your eyes and in particular of your retina.

> **Attention:** LED Class 2M can cause injuries of your eyes even without optical instruments in front of them or within a distance of less than 0.5m and short exposure time.
> **Hence: Avoid direct radiation into your eyes!**

7. To ensure safe operation, follow also the Installation guide described in the chapter below. Operating the **IMPRESSION X4 Bar 20** without suitable safety aids like Safety cables or clamps/hooks can increase the risk of an accident and must be avoided.

8. Repair, maintenance, and installation work shall be done by qualified or GLP certified staff only. You need to pay attention to the common rules of technology that are not explicitly mentioned in this manual.

9. Use only original GLP spare parts. Any structural modification of the system will terminate all warranty claims.

10. Please keep this instruction manual for future reference.

2   Preparation and Installation

2.1   Safety Information

The **IMPRESSION X4 Bar 20** 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.
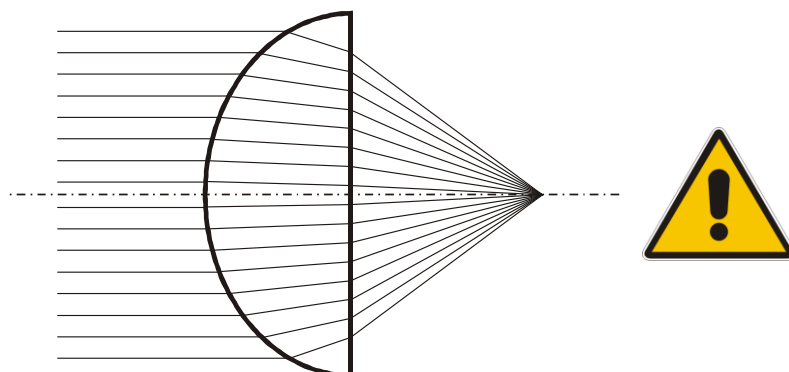
Should you have any questions about the operation of your fixture then please contact your local GLP office, or their authorized distributor, a list of which can be found at http://www.glp.de.

2.2 Mounting

The **IMPRESSION X4 Bar 20** 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.).
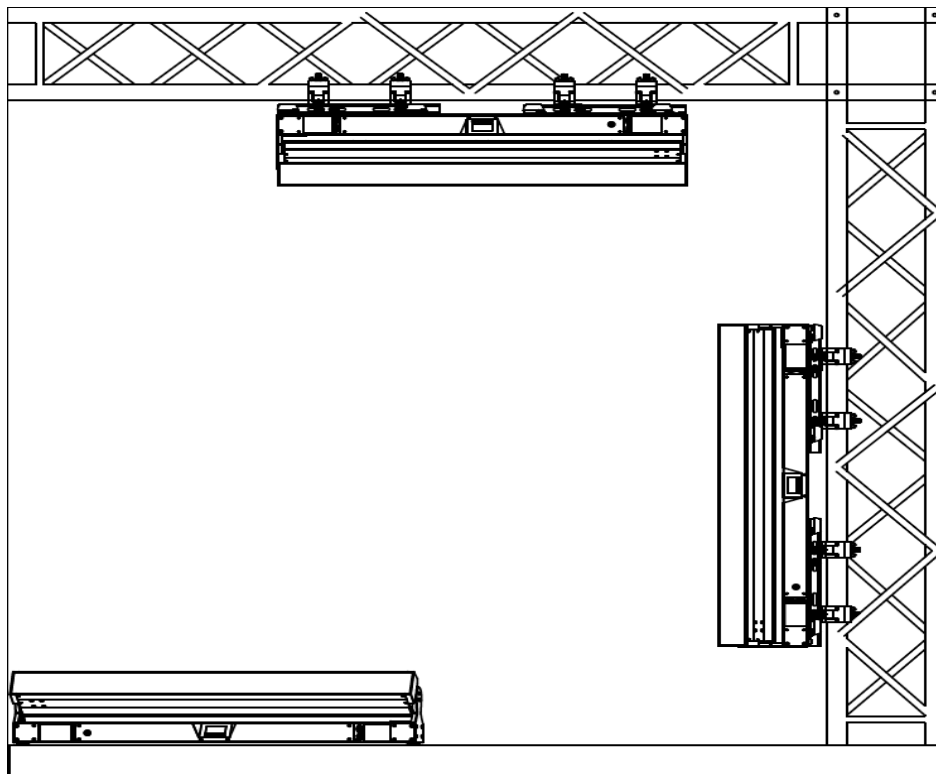
> ⚠ **Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217.**
> **The installation shall be done by qualified staff only.**

For the various mounting positions of the **IMPRESSION X4 Bar 20** (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 #1   4 x Camlock for bracket #2
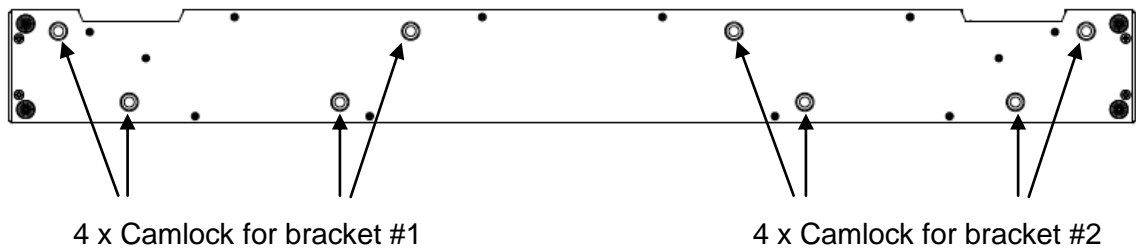
2.2.1 Operating on the Floor (Upright)

The **IMPRESSION X4 Bar 20** 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.

2.2.2 Mounting in hanging or sideways position

To operate the **IMPRESSION X4 Bar 20** in a hanging position please use the two (2) dedicated brackets supplied with your fixture. They are fixed to the base of the fixture with fasteners called Camlock quick-release connectors. Insert the four fasteners of each and turn each 90° to lock them. Do the opposite to release them again.

2.3 Securing the Fixture

Regardless of the mounting method of the **IMPRESSION X4 Bar 20** you'll have to use a stipulated safety wire. Attach the safety wire through the bracket 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 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.

2.4 Connections

2.4.1 Power Supply

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

Connected load 450 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 20** is fitted with NEUTRIK® powerCON locking 3 conductor AC connectors. Up to max. 10 fixtures can be linked via the power outlets staying within the power limits of the 20A of the connectors.

Note: Regional regulations and limits might be lower and differ from that.
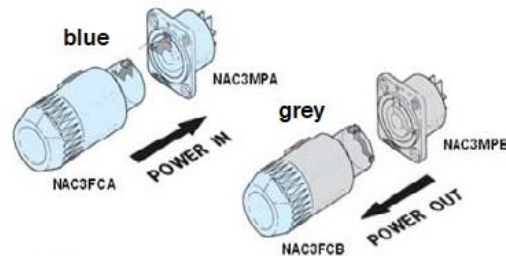
Picture: Courtesy of NEUTRIK® AG

2.4.2 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].

3 The Menu Field

You'll find the control board on the side part of the arm. It allows you to make all necessary adjustments of the **IMPRESSION 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.
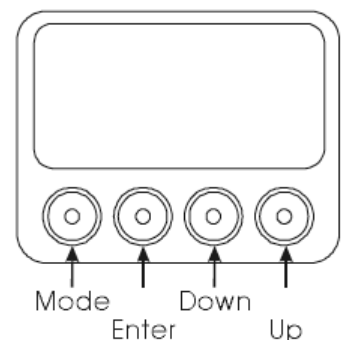
To lock or unlock the keys of the menu field press Mode + Enter + Up simultaneously.

4 DMX Chanel Selection (DMX Protocol)

4.1 Normal Mode (norm) 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	Applicable for 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 Set 1 Green	Color mixing system - Green	0 - 100%	0..255
8 Set 1 Blue	Color mixing system - Blue	0 - 100%	0..255
9 Set 1 White	Color mixing system - White	0 - 100%	0..255
10 Set 1 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**	RESET	> 1 sec	250..255
14 **Set 2 Color** [4]	Values see Channel 5	-	-
15 **Set 2 Red** [4]	Color mixing system - Red	0 - 100%	0..255
16 **Set 2 Green** [4]	Color mixing system - Green	0 - 100%	0..255
17 **Set 2 Blue** [4]	Color mixing system - Blue	0 - 100%	0..255
18 **Set 2 White** [4]	Color mixing system - White	0 - 100%	0..255
19 **Set 2 Intensity** [4]	Intensity	0 - 100%	0..255
20 **Set 3 Color** [4]	Values see Channel 5	-	-
21 **Set 3 Red** [4]	Color mixing system - Red	0 - 100%	0..255
22 **Set 3 Green** [4]	Color mixing system - Green	0 - 100%	0..255
23 **Set 3 Blue** [4]	Color mixing system - Blue	0 - 100%	0..255
24 **Set 3 White** [4]	Color mixing system - White	0 - 100%	0..255
25 **Set 3 Intensity** [4]	Intensity	0 - 100%	0..255
26 **Crossfade**	0..2 seconds transistion time		0..255
27 **Star Effect**			0..255
28 **Set 1 Pattern Select**			0..255
29 **Set 1 Pattern Movement**			0..255
30 **Set 2 Pattern Select**			0..255
31 **Set 2 Pattern Movement**			0..255
32 **Pixel Select 1 - 8**			0..255
33 **Pixel Select 9 - 16**			0..255
34 **Pixel Select 17 - 20**			0..255

4.2 Compressed Mode (comp) 20 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	**Set 1 Green**	Color mixing system - Green	0 - 100%	0..255
8	**Set 1 Blue**	Color mixing system - Blue	0 - 100%	0..255
9	**Set 1 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	Applicable	8..255
			for ALL colors	
13	Special	RESET	> 1 sec	250..255
14	Crossfade	0..2 seconds transistion time		0..255
15	Set 1 Pattern Movement			0..255
16	Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
17	Set 1 Pattern Select			0..255
18	Pixel Select 1 - 8			0..255
19	Pixel Select 9 - 16			0..255
20	Pixel Select 17 - 20			0..255

4.3 Single Pixel Mode (spix) 88 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	Applicable for ALL colors	8..255
6 Special	RESET	> 1 sec	250..255
7 Crossfade	0..2 seconds transistion time		0..255
8 Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
9 Set 1 Red	Color mixing system - Red	0 - 100%	0..255
10 Set 1 Green	Color mixing system - Green	0 - 100%	0..255
11 Set 1 Blue	Color mixing system - Blue	0 - 100%	0..255
12 Set 1 White	Color mixing system - White	0 - 100%	0..255
13 Set 2 Red	Color mixing system - Red	0 - 100%	0..255
14 Set 2 Green	Color mixing system - Green	0 - 100%	0..255
15 Set 2 Blue	Color mixing system - Blue	0 - 100%	0..255
16 Set 2 White	Color mixing system - White	0 - 100%	0..255
17 Set 3 Red	Color mixing system - Red	0 - 100%	0..255
18 Set 3 Green	Color mixing system - Green	0 - 100%	0..255
19 Set 3 Blue	Color mixing system - Blue	0 - 100%	0..255
20 Set 3 White	Color mixing system - White	0 - 100%	0..255
21 Set 4 Red	Color mixing system - Red	0 - 100%	0..255
22 Set 4 Green	Color mixing system - Green	0 - 100%	0..255
23 Set 4 Blue	Color mixing system - Blue	0 - 100%	0..255
24 Set 4 White	Color mixing system - White	0 - 100%	0..255
25 Set 5 Red	Color mixing system - Red	0 - 100%	0..255
26 Set 5 Green	Color mixing system - Green	0 - 100%	0..255
27 Set 5 Blue	Color mixing system - Blue	0 - 100%	0..255

28	Set 5 White	Color mixing system - White	0 - 100%	0..255
29	Set 6 Red	Color mixing system - Red	0 - 100%	0..255
30	Set 6 Green	Color mixing system - Green	0 - 100%	0..255
31	Set 6 Blue	Color mixing system - Blue	0 - 100%	0..255
32	Set 6 White	Color mixing system - White	0 - 100%	0..255
33	Set 7 Red	Color mixing system - Red	0 - 100%	0..255
34	Set 7 Green	Color mixing system - Green	0 - 100%	0..255
35	Set 7 Blue	Color mixing system - Blue	0 - 100%	0..255
36	Set 7 White	Color mixing system - White	0 - 100%	0..255
37	Set 8 Red	Color mixing system - Red	0 - 100%	0..255
38	Set 8 Green	Color mixing system - Green	0 - 100%	0..255
39	Set 8 Blue	Color mixing system - Blue	0 - 100%	0..255
40	Set 8 White	Color mixing system - White	0 - 100%	0..255
41	Set 9 Red	Color mixing system - Red	0 - 100%	0..255
42	Set 9 Green	Color mixing system - Green	0 - 100%	0..255
43	Set 9 Blue	Color mixing system - Blue	0 - 100%	0..255
44	Set 9 White	Color mixing system - White	0 - 100%	0..255
45	Set 10 Red	Color mixing system - Red	0 - 100%	0..255
46	Set 10 Green	Color mixing system - Green	0 - 100%	0..255
47	Set 10 Blue	Color mixing system - Blue	0 - 100%	0..255
48	Set 10 White	Color mixing system - White	0 - 100%	0..255
49	Set 11 Red	Color mixing system - Red	0 - 100%	0..255
50	Set 11 Green	Color mixing system - Green	0 - 100%	0..255
51	Set 11 Blue	Color mixing system - Blue	0 - 100%	0..255
52	Set 11 White	Color mixing system - White	0 - 100%	0..255
53	Set 12 Red	Color mixing system - Red	0 - 100%	0..255
54	Set 12 Green	Color mixing system - Green	0 - 100%	0..255
55	Set 12 Blue	Color mixing system - Blue	0 - 100%	0..255
56	Set 12 White	Color mixing system - White	0 - 100%	0..255
57	Set 13 Red	Color mixing system - Red	0 - 100%	0..255
58	Set 13 Green	Color mixing system - Green	0 - 100%	0..255
59	Set 13 Blue	Color mixing system - Blue	0 - 100%	0..255
60	Set 13 White	Color mixing system - White	0 - 100%	0..255
61	Set 14 Red	Color mixing system - Red	0 - 100%	0..255
62	Set 14 Green	Color mixing system - Green	0 - 100%	0..255
63	Set 14 Blue	Color mixing system - Blue	0 - 100%	0..255
64	Set 14 White	Color mixing system - White	0 - 100%	0..255
65	Set 15 Red	Color mixing system - Red	0 - 100%	0..255

66 Set 15 Green	Color mixing system - Green	0 - 100%	0..255
67 Set 15 Blue	Color mixing system - Blue	0 - 100%	0..255
68 Set 15 White	Color mixing system - White	0 - 100%	0..255
69 Set 16 Red	Color mixing system - Red	0 - 100%	0..255
70 Set 16 Green	Color mixing system - Green	0 - 100%	0..255
71 Set 16 Blue	Color mixing system - Blue	0 - 100%	0..255
72 Set 16 White	Color mixing system - White	0 - 100%	0..255
73 Set 17 Red	Color mixing system - Red	0 - 100%	0..255
74 Set 17 Green	Color mixing system - Green	0 - 100%	0..255
75 Set 17 Blue	Color mixing system - Blue	0 - 100%	0..255
76 Set 17 White	Color mixing system - White	0 - 100%	0..255
77 Set 18 Red	Color mixing system - Red	0 - 100%	0..255
78 Set 18 Green	Color mixing system - Green	0 - 100%	0..255
79 Set 18 Blue	Color mixing system - Blue	0 - 100%	0..255
80 Set 18 White	Color mixing system - White	0 - 100%	0..255
81 Set 19 Red	Color mixing system - Red	0 - 100%	0..255
82 Set 19 Green	Color mixing system - Green	0 - 100%	0..255
83 Set 19 Blue	Color mixing system - Blue	0 - 100%	0..255
84 Set 19 White	Color mixing system - White	0 - 100%	0..255
85 Set 20 Red	Color mixing system - Red	0 - 100%	0..255
86 Set 20 Green	Color mixing system - Green	0 - 100%	0..255
87 Set 20 Blue	Color mixing system - Blue	0 - 100%	0..255
88 Set 20 White	Color mixing system - White	0 - 100%	0..255

The Pixel are numbered left to right 1 – 20 as shown below.

Tilt DMX Value = 0 / "Display" to the front / "Power & DMX In" to the left.

Power / DMX In   **Display**   **Power Out / DMX Out**
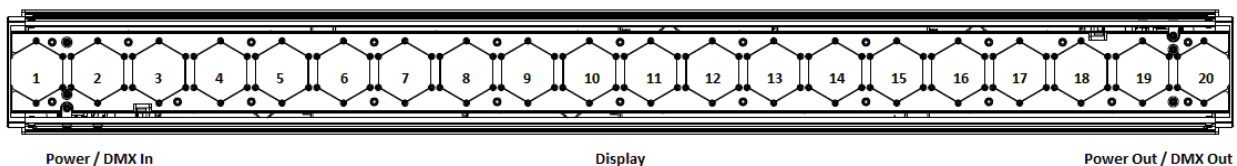
[1] The predefined colors can be used as start-colors for the Rainbow effect. Please select first a desired start-color before you activate the rainbow effect. All **IMPRESSION X4 Bar 20** will then start from that color and will execute the rainbow effect synchronously. Different **IMPRESSION X4 Bar 20** 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).

5   Maintaining and Cleaning

The **IMPRESSION X4 Bar 20** 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, under no circumstances should alcohol or solvents be used!

5.1   Safety regulations

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

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

5.2   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.

<u>**Attention:**</u>

- **Never let optical parts come into contact with oil or fat.**
- **Before running the fixture wait until all parts are dry.**
- **Never tough lenses with bare fingers.**

6   Technical Specifications:

Power supply	
Power consumption	450 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	20 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	
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 zoom	
Optical Patterns	
Several pre-defined beam patterns with direct access and manipulation	
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	**1000 mm / 39.4˝**
Width	**100 mm / 3.9˝**
Height	**240 mm / 9.4˝**
Weight (net)	**14.5 kg / 32 lbs**
Weight with 2 brackets	**16 kg / 35 lbs**

7   Dimensions