# impression<sup>®</sup>

# nstruction Manual



from software version: 1.48 (Instruction version: 1.3)



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Notes:



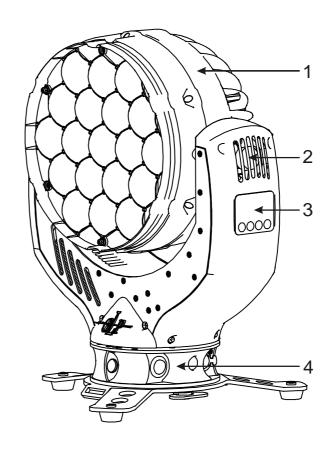
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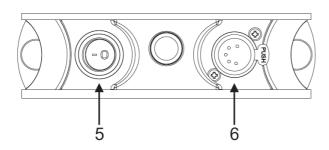


# 1 Description of Device

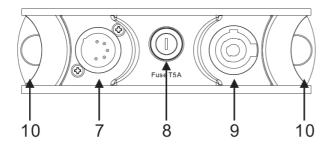
- Moving head (actively and passively cooled)
- 2. Arm with various cooling vents
- 3. LCD-Display/Menu (data entry)
- Base with various connectors and Camlock mounting system



Base side 1



Base side 2



- 5. Power On/Off
- 6. DMX- Output (5 pin)
- 7. DMX- Input (5 pin)
- 8. Micro-fuse 5x20mm, T5A
- 9. Mains supply (Powercon)
- 10. 2 x Safety eyes



# 2 Safety Instructions



The **IMPRESSION X4** 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**:

<u>Never</u> 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. <u>Attention!</u> 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.
- To ensure safe operation, follow also the Installation guide described in the chapter below. Operating the IMPRESSION X4 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** 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.

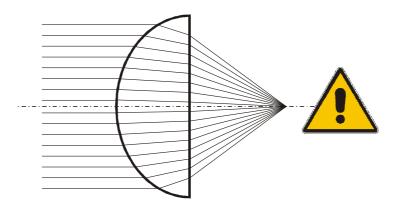
If the rays from a strong light source (such as the sun or another lighting fixture) are directed towards the front of any of these fixtures, then internal damage may occur. In a worst case scenario with a high power light source this can happen very quickly, damaging the fixture internally, potentially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





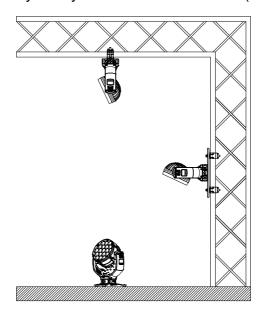
#### Warning:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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** 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.).



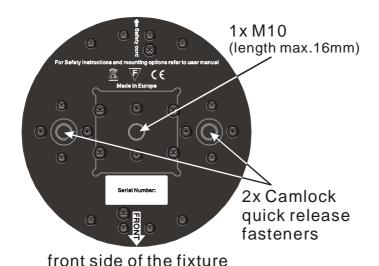


Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217.

The installation shall be done by qualified staff only.

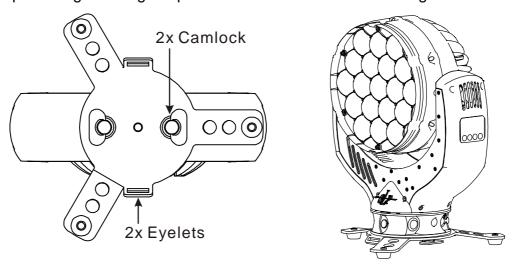
For the various mounting positions of the **IMPRESSION X4** (standing on the floor, sideways or hanging) different accessories kits are available. Through this a safe and firm installation is assured. You'll find dedicated connectors on the bottom side of the fixture which should be used. In addition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





# 3.1 Mounting on the Floor (Upright)

To operate the **IMPRESSION X4** 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 though a fixing strap. This allows for additional bracing of the fixture.

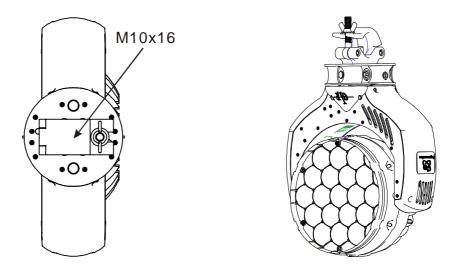


#### 3.2 Mounting in hanging position

To operate the **IMPRESSION X4** in a hanging position please use a half-coupler (clamp). This can be mounted directly to the bottom side of the fixture. It should be attached centrically with a M10x16 mm thread bolt.

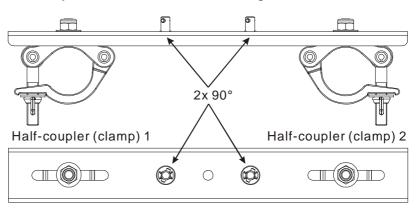
<u>Attention:</u> Never use a longer bolt as this may damage the interior of the fixture.



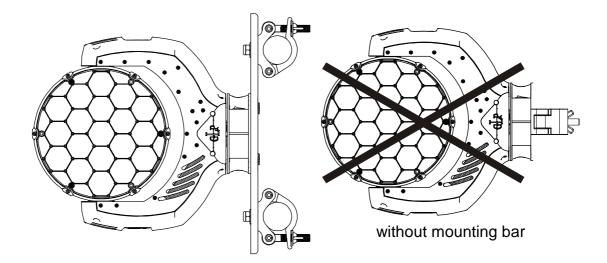


#### 3.3 Mounting in sideways Position

To operate the **IMPRESSION X4** in a sideways position please use an additional mounting bar. This is fixed by two Camlock quick-release connectors. Two half-couplers (clamps) are used to mount the bar to a standard truss bar. This technique is necessary to cope with the torque which accrues in this mounting position. In addition it allows a repositioning of the couplers to fit between two truss chords. Never use the "Mounting in hanging position" technique described above to fasten the fixture in the sideways position. A safe and sound installation can not be assured in this way. In addition this can damage the fixture base.







#### 3.4 Securing the Fixture

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

#### 3.5 Connections

#### 3.5.1 Power Supply

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

Connected load 350 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.

#### 3.5.2 DMX

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

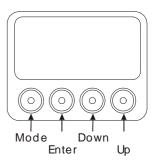
Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+] / Pin 4&5 N.C.

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.** 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 →

	Level1	Level 2	Level 3	Level 4	Remark
	DMX Start Address 001				Set the DMX start address
	Special	Manual DMX			Manual control of all fixture functions
			Pan		Manual control for Pan (X-movement)
			Pattern Byte 3		Manual control for Pattern Byte 3 LED 17 -19
			Pattern Byte 2		Manual control for Pattern Byte 2 LED 9 - 16
UP →			Pattern Byte 1		Manual control for Pattern Byte 1 LED 1 - 8
			Pattern		Manual control for Pattern channel / bank
×			Zoom		Manual control for Zoom
- DOWN -			Speed Movements		Manual control for Pan/Tilt movements
Ψ			Pan/Tilt Movements		Manual control for Pan/Tilt movements
			Special		
			White Temperature		Manual control for Color temperature
			Dimmer		Manual control for Dimmer
			Shutter		Manual control for Shutter
			White		Manual control for White
			Blue		Manual control for blue
			Green		Manual control for green
			Red		Manual control for red
			Color Wheel		Manual control for the color wheel
			Tilt		Manual control for Tilt (Y-movement)
		Adjust			
			Key code xxxx		Use the code for entering the calibration menu (for authorized persons only)



	Display Contrast		Adjustment for the Display contrast
	PWM - Frequ. Adj.		Changes PMW frequency
	Pan Offset		Calibration for Pan-Offset
	Tilt Offset		Calibration for Tilt-Offset
	LED adjust		
		White adjust red	Adjust intensity for red channel
		White adjust blue	Adjust intensity for blue channel
		White adjust green	Adjust intensity for green channel
	Clear EEPROM		Erase EEPROM memory
	Diagnose		Diagnose fixture functions
DMX Image			
	Set image if DMX off		Activates a stored scene if DMX is off
	Save image in memory		Stores the scene currently sent to the unit
DMX input Monitor	DMX input		Indicates the presently received DMX signal per DMX channel
	Pan		Instantaneous value for Pan
	Tilt		Instantaneous value for Tilt
	Pattern Byte 3		Instantaneous value for Pattern Byte 3
	Pattern Byte 2		Instantaneous value for Pattern Byte 2
	Pattern Byte 1		Instantaneous value for Pattern Byte 1
	Pattern		Instantaneous value for Pattern channel / bank
	Zoom		Instantaneous value for Zoom
	Speed Movements		Speed adjustment for Pan/Tilt movements → see item below
	Pan/Tilt Movements		Instantaneous value for Pan/Tilt movements
	Special		Instantaneous value for Special
	White Temperature		Adjustment of the color temperature for WHITE
	Dimmer		Instantaneous value for Dimmer
	Shutter		Instantaneous value for Shutter
	White		Instantaneous value for White
	Blue		Instantaneous value for Blue
	Green		Instantaneous value for Green
	Red		Instantaneous value for Red
	Color Wheel		Instantaneous value for Color Mixing unit





Set DMX Mode	
	Compressed
	Mode
	Normal
	Mode
	High-Res.
	Mode
Position	
feedback	
Reverse Pan	
Reverse Tilt	
Reset	

Select the desired DMX Mode
Fixture works in "Compressed" mode → see also section 5 unterhalb
Fixture works in "Normal" mode → see also section 5 unterhalb
Fixture works in "High Resolution" mode → see also section 5 unterhalb
Switch automatic position feedback ON/OFF
Invert Pan movements: ON/OFF
Invert Tilt movements: ON/OFF
RESET and new calibration for all functions



# 5 DMX Channel Selection (DMX Protocol)

# Normal-Mode 20 DMX channels

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-	0 660°		0255	00FF	0100
coarse					
2) PAN-fine	High- Pos High- Pos + 2.6° (16 Bit)		0255	00FF	0100
3) Tilt-	0 300°		0255	00FF	0100
coarse					
4) Tilt-fine	High- Pos High- Pos + 1.2° (16 Bit)		0255	00FF	0100
5) Color	Colors adjustable via RGB		07	0007	025
(fixed)	Color 01 - Red 1)		815	080F	35.5
, ,	Color 02 - Amber 1)		1623	1017	68.5
	Color 03 - Warm Yellow 1)		2431	181F	912.5
	Color 04 - Yellow 1)		3239	2027	1315.5
	Color 05 - Green 1)		4047	282F	1618.5
	Color 06 - Turquoise 1)		4855	3037	1921.5
	Color 07 - Cyan 1)		5663	383F	2224.5
	Color 08 - Blue 1)		6471	4047	2527.5
	Color 09 - Lavender 1)		7279	484F	2830.5
	Color 10 - Malve 1)		8087	5057	3134.5
	Color 11 - Magenta 1)		8895	585F	3537.5
	Color 12 - Pink 1)		96103	6067	3840.5
	White - CTO	3200K	104111	686F	4143.5
	White	5600K	112119	7077	4446.5
	White - CTB	7200K	120127	787F	4749.5
	Rainbow Effect Stop 2)		128	80	50
	Rainbow Effect 3)	slow - fast	129223	81DF	5188
	Random colors	slow - fast	224255	E0FF	89100
6) Red	Color mixing system - Red	0 - 100%	0255	00FF	0100
7) Green	Color mixing system - Green	0 - 100%	0255	00FF	0100
8) Blue	Color mixing system - Blue	0 - 100%	0255	00FF	0100
9) White	Color mixing system - White	0 - 100%	0255	00FF	0100
10) Shutter	Shutter closed		015	000F	05.5
	Shutter pulse random	slow – fast	1647	102F	618.5
	Up-dimming then Shutter closing	slow – fast	4879	304F	1931
	(random patterns)	olow rast	4073	001	1001
	Shutter open then down-dimming	slow – fast	80111	506F	3243
	(random patterns)				
	Up-dimming then down-dimming	slow – fast	112143	708F	4456
	(random patterns)	50.00			
	Strobe effect pause	5s - 0.1s 1 Hz - 10 Hz	160199	A0C7	6377
	Strobe effect slow - fast	1 H2 - 10 H2	200239	C8EF	7894
11) Dim	Shutter open	0 1009/	240255	F0FF	95100
11) Dimmer	Dimmer	0 - 100%	0255	0FF	0100
12) CTO	No CTO	Applicable for All	07	007	02.5
	Continuous color temperature correction	Applicable for ALL colors	8255	08FF	3100
13) Special	Pattern Block 1 → channel 17	001013	0.2	00 03	0.1
13) Special			03	0003	01
	Pattern Block 2 → channel 17		47	0407	1.52.5
	Change PWM frequency RESET		100200	64C8	4078
14) Move-			250255	FAFF	98100
ment	No macros  Movement Size Phase	Use "Speed" to adjust	U	00	0
ment	wovement size rnase	ose speed to adjust			



Channel	Function			Time and Value	DMX	HEX	%
macros	PAN	1	0°		0101	0101	0.5
		1	90°		0203	0203	1.0
		1	180°		0405	0405	1.7
		1	270°		0607	0607	2.5
	PAN	2	0°		0809	0809	3.3
		2	90°		1011	0A0B	4.1
		2	180°		1213	0C0D	4.9
		2	270°		1415	0E0F	5.7
	PAN	3	0°		1617	1111	6.5
		3	90°		1819	1213	7.3
		3	180°		2021	1415	8.0
		3	270°		2223	1617	8.8
	PAN	4	0°		2425	1819	9.6
		4	90°		2627	1A1B	10.4
		4	180°		2829	1C1D	11.2
		4	270°		3031	1E1F	12
	TILT		size / phase		3263	203F	1325
	PAN / TILT		size / phase		6495	405F	2637
	PAN / TILT	(inverse)	size / phase		96127	607F	3850
	Circle		size / phase		128159	809F	5162
	Circle (inve		size / phase		160191	A0BF	6375
	Lying eight		size / phase		192223	C0DF	7687
	Random m		size / phase	see PAN	224255	E0FF	88100
15) Speed	Pan/Tilt mo	vement speed	from		01	0001	005
Pan/Tilt	Pan/Tilt, slo	ow – fast					
	Use this ch	annel also for t	the speed of		02255	02FF	1100
	the movem	ents (channel	14).				
16) Zoom	Wide - narr	ow (spot)			0255	00FF	0100
17) Pattern	No pattern				02	0002	01
		fined patterns			03253	03FD	299
	(see appen						
	Activates d	irect access to	LED Pattern	See channels 18-20	254255	FEFF	100
18) Pattern Byte 1	Direct acce	ess to Pattern o	f LED 18		0255	00FF	0100
19) Pattern Byte 2	Direct acce	ess to Pattern o	f LED 916		0255	00FF	0100
20) Pattern Byte 3	Direct acce	ess to Pattern o	f LED 1719		007	0007	02.5

# **Compress-Mode 14 DMX channels**

Channel	Function	Time and Value	DMX	HEX	%
1) PAN- coarse	0 660°		0255	00FF	0100
2) PAN-fine	High- Pos High- Pos + 2.6° (16 Bit)		0255	00FF	0100
3) Tilt- coarse	0 300°		0255	00FF	0100
4) Tilt-fine	High- Pos High- Pos + 1.2° (16 Bit)		0255	00FF	0100



Channel	Function	Time and Value	DMX	HEX	%
5) Color	Colors adjustable via RGB		07	0007	02.5
(fixed)	Color 01 - Red 1)		815	080F	35.5
	Color 02 - Amber 1)		1623	1017	68.5
	Color 03 - Warm Yellow 1)		2431	181F	912.5
	Color 04 - Yellow 1)		3239	2027	1315.5
	Color 05 - Green 1)		4047	282F	1618.5
	Color 06 - Turquoise 1)		4855	3037	1921.5
	Color 07 - Cyan 1)		5663	383F	2224.5
	Color 08 - Blue 1)		6471	4047	2527.5
	Color 09 - Lavender 1)		7279	484F	2830.5
	Color 10 - Mauve 1)		8087	5057	3134.5
	Color 11 - Magenta 1)		8895	585F	3537.5
	Color 12 - Pink 1)		96103	6067	3840.5
	White - CTO	Color temperature 3200K	104111	686F	4143.5
	White	Color temperature 5600K	112119	7077	4446.5
	White - CTB	Color temperature 7200K	120127	787F	4749.5
	Rainbow Effect Stop 2)		128	80	50
	Rainbow Effect 3)	slow - fast	129223	81DF	5188
	Rainbow Effect, random colors	slow - fast	224.255	E0FF	89100
6) Red	Color mixing system - Red	0 - 100%	0255	00FF	0100
7) Green	Color mixing system - Green	0 - 100%	0255	00FF	0100
8) Blue	Color mixing system - Blue	0 - 100%	0255	00FF	0100
9) White	Color mixing system - White	0 - 100%	0255	00FF	0100
10) Shutter	Shutter closed		015	000F	05.5
10, 0110101	Random Pulse effect	slow - fast	1647	102F	618.5
	Up-dimming then Shutter closing (random patterns)	slow - fast	4879	304F	1931.5
	Shutter open then down-dimming (random patterns)	slow - fast	80111	506F	3243
	Up-dimming then down-dimming (random patterns)	slow - fast	112143	708F	4456
	Strobe effect pause	5s 1s	144199	A0C7	5777
	Strobe effect, slow - fast	1 Hz 10 Hz	200239	C8EF	7894
	Shutter open		240249	F0F9	9597.5
	Shutter open		251255	FBFF	99100
11) Dimmer	Dimmer	0 - 100%	0255	0FF	0100
12) Zoom	Wide - narrow (spot)		0255	00FF	0100
13) Special	Pattern Block 1 → channel 14		03	0003	01
, , , , , , , , ,	Pattern Block 2 → channel 14		47	0407	1.52.5
	Change PWM frequency		100200	64C8	4078
	RESET		250255	FAFF	98100
14) Pattern	No pattern		02	0002	01
	250 pre-defined patterns		03253	03FD	299
	(see appendix A)		00200	03⊏D	۷3



# **High Resolution (Extended) - Mode 21 DMX Channels**

Channel	Function	Time and Value	DMX	HEX	%
4) DAN	0.000		0.055	00 55	0.400
1) PAN- coarse	0 660°		0255	00FF	0100
2) PAN-fine	High- Pos High- Pos + 2.6° (16 Bit)		0255	00FF	0100
3) Tilt-	0 300°		0255	00FF	0100
coarse	0 300		0255	00	0100
4) Tilt-fine	High- Pos High- Pos + 1.2° (16 Bit)		0255	00FF	0100
5) Red-	Color mixing system – Red	0 - 100%	0255	00FF	0100
coarse	Solor mixing system Trea	0 10070	0200	00	000
6) Red- fine	Color mixing system – Red-Low		0255	00FF	0100
7) Green- coarse	Color mixing system – Green	0 - 100%	0255	00FF	0100
8) Green- fine	Color mixing system – Green-Low		0255	00FF	0100
9) Blue- coarse	Color mixing system – Blue	0 - 100%	0255	00FF	0100
10) Blue- fine	Color mixing system – Blue-Low		0255	00FF	0100
11) White- coarse	Color mixing system – White	0 - 100%	0255	00FF	0100
12) White- fine	Color mixing system – White-Low		0255	00FF	0100
13) Shutter	Shutter closed		015	000F	05.5
	Random Pulse effect	slow - fast	1647	102F	618.5
	Up-dimming then Shutter closing (random patterns)	slow - fast	4879	304F	1931.5
	Shutter open then down-dimming (random patterns)	slow - fast	80111	506F	3243
	Up-dimming then down-dimming (random patterns)	slow - fast	112143	708F	4456
	Strobe effect pause	5s - 1s	144199	A0C7	5777
	Strobe effect, slow - fast	1 Hz - 10 Hz	200239	C8EF	7894
	Shutter open		240249	F0F9	9597.5
4.4) Diamen	Shutter open	0 4000/	251255	FBFF	99100
14) Dimmer- coarse	Dimmer	0 - 100%	0255	0FF	0100
15) Dimmer- fine	Dimmer - Low		0255	0FF	0100
16) Zoom	Spot - Flood		0255	00FF	0100
17) Special	Pattern Block 1 → channel 18		03	0003	01
	Pattern Block 2 → channel 18		47	0407	1.52.5
	Change PWM frequency RESET		100200 250255	64C8 FAFF	4078
18) Pattern	No pattern		02	0002	98100
10) Fallelli	250 pre-defined patterns (see appendix A)		03253	03FD	299
	Activates direct access to LED Pattern	See channels 18-20	254255	FEFF	100
19) Pattern Byte 1	Direct access to Pattern of LED 18	223 5.16.11.310 10 20	0255	00FF	0100
20) Pattern Byte 2	Direct access to Pattern of LED 916		0255	00FF	0100



Channel	Function	Time and Value	DMX	HEX	%
21) Pattern Byte 3	Direct access to Pattern of LED 1719		007	0007	02.5

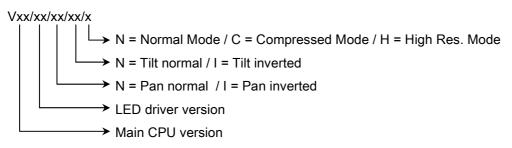
<sup>&</sup>lt;sup>1)</sup> The predefined colors can be used as start-colors for the Rainbow effect. Please select first a desired start-color before you activate the rainbow effect. All **IMPRESSION X4** will then start from that color and will execute the rainbow effect synchronously. Different **IMPRESSION X4** can have different start-colors but will still execute the rainbow effect synchronously. If you choose a color different from the ones marked with <sup>1)</sup> in the tables above the rainbow start-color will be red.

#### **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:



<sup>&</sup>lt;sup>2)</sup> Rainbow-effect Stop will pause this function. After resuming the rainbow-effect will be continued from the current color.

<sup>&</sup>lt;sup>3)</sup> The Rainbow-effect will run synchronously only if started from one of the predefined colors (see also <sup>1)</sup> before).



# 6 Maintaining and Cleaning the IMPRESSION X4

The **IMPRESSION X4** 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!



#### Attention:

Under <u>no</u> circumstances should alcohol or solvents be used to clean the lenses!

#### 6.1 Safety regulations

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

#### 6.2 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.

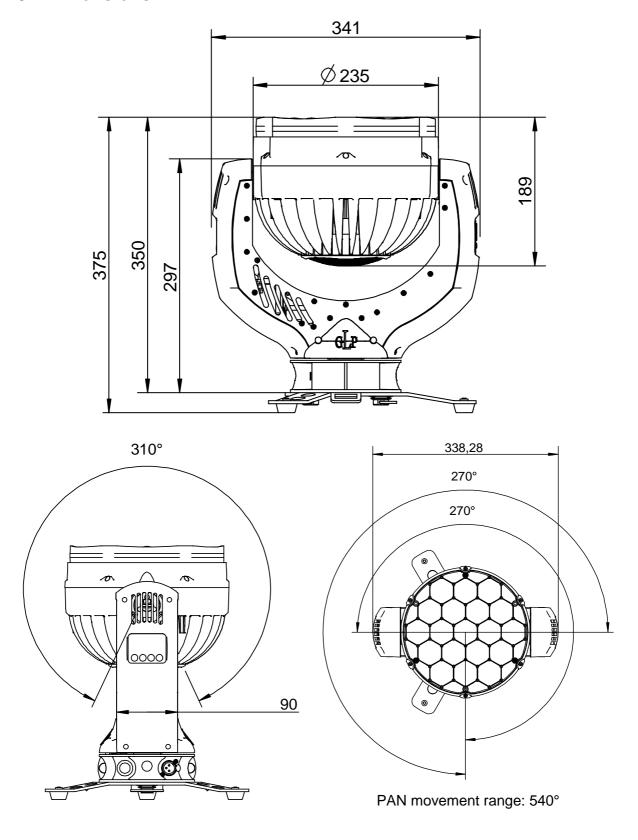


# 7 Technical Specifications

Power supply		
Power consumption	350 VA (Watt)	
Power Input	~100-240 V AC, 50-60 Hz (wide range input)	
Fuse protection	Micro-fuse 5x20 mm, T5A	
<b>Operational Parameters</b>		
Max. Ambient Temperature	5° - 45°C (integrated overheating switch)	
<b>Mounting Position</b>	Any (see relevant chapter)	
<b>Lighting System - Additi</b>	ve Color mixing	
LED Type	19 x Osram Ostar RGBW multi-chip	
Lifetime	50,000 h	
Wavelength optimized for	maximum presentable color space	
<b>Optical System</b>		
Full RGBW / High efficient Collimator cluster		
Shutter / Dimmer (8/16 B	it)	
Strobe- Effect with variable Effects	e speed between 1 - 10 flashes per second, Random-Strobe, Pulse-	
Continuous Dimmer 0 - 10	00%	
Zoom		
7 to 50 degree continuous	zoom	
Optical Patterns		
Several hundred pre-defin	ed beam patterns with direct access and manipulation	
DMX Control		
	2, 5 pin XLR; [+] = Pin 3 / [-] = Pin 2 / [Ground] = Pin 1 / Pin 4&5 N.C. ts at the DMX channel [001].	
Pan / Tilt (8/16 Bit)		
Pan- movement	660° in min. 3,2 seconds (Position Feedback)	
Tilt- movement	300° in min. 1,5 seconds (Position Feedback)	
<b>Weights and Measures</b>		
Width of the base	341 mm	
Length of the base	145 mm	
height (head vertical)		
Weight (net)	375 mm (incl. standing foot/tripod)	



# 8 Dimensions





# 9 Appendix A

Patterns are grouped into two sets which can be activated and selected via the DMX channel "Special". Choose the desired pattern by its corresponding DMX value on channel "Pattern".

**Orientation:** Patterns are shown when looking at the **front** of a standing fixture; Head faced in direction of fixtures front label: DMX Pan @ 128; Tilt @ 220; Zoom @ 255 (letters are displayed homogenous).



### Patterns Set 1



DMX	Pattern
000	
001	
002	
003	
004	
005	
006	
007	
008	
009	
010	
011	
012	
013	
014	
015	
016	

DMX	Pattern
017	
018	
019	
020	
021	
022	
023	
024	
025	
026	
027	
028	
029	
030	
031	
032	
033	

DMX	Pattern
	attern
034	
035	
036	
037	
038	
039	
040	
041	
042	
043	
044	
045	
046	
047	
048	
049	
050	

DMX	Pattern
051	
052	
053	
054	
055	
056	
057	
058	
059	
060	
061	
062	
063	
064	
065	
066	
067	



DMX	Pattern
068	
069	
070	
071	
072	
073	
074	
075	
076	
077	
078	
079	
080	
081	
082	
083	
084	

DMX	Pattern
085	
086	
087	
088	
089	
090	
091	
092	
093	
094	
095	
096	
097	
098	
099	
100	
101	

DMX	Pattern
102	
103	
104	
105	
106	
107	
108	
109	
110	
111	
112	
113	
114	
115	
116	
117	
118	

DMX	Pattern
119	
120	
121	
122	
123	
124	
125	
126	
127	
128	
129	
130	
131	
132	
133	
134	
135	



DMX	Pattern
136	
137	
138	
139	
140	
141	
142	
143	
144	
145	
146	
147	
148	
149	
150	
151	
152	

DMX	Pattern
153	
154	
155	
156	
157	
158	
159	
160	
161	
162	
163	
164	
165	
166	
167	
168	
169	

DMX	Pattern
170	
171	
172	
173	
174	
175	
176	
177	
178	
179	
180	
181	
182	
183	
184	
185	
186	

DMX	Pattern
187	
188	
189	
190	
191	
192	
193	
194	
195	
196	
197	
198	
199	
200	
201	
202	
203	



DMX	Pattern
204	
205	
206	
207	
208	
209	
210	
211	
212	
213	
214	
215	
216	

	1=
DMX	Pattern
217	
218	
219	
220	
221	
222	
223	
224	
225	
226	
227	
228	
229	

DMX	Pattern
230	
231	
232	
233	
234	
235	
236	
237	
238	
239	
240	
241	
242	
<i>L</i> 1 <i>L</i>	

DMX	Pattern
243	
244	
245	
246	
247	
248	
249	
250	
251	
252	
253	reserved
254	reserved
255	reserved

# Patterns Set 2

DMX	Pattern
000	
001	

DMX	Pattern
002	
003	

DMX	Pattern
004	
005	

DMX	Pattern
006	
007	



DMX	Pattern
008	
009	
010	
011	
012	
013	
014	
015	
016	
017	
018	
019	
020	
021	
022	
023	
024	

	T
DMX	Pattern
025	
026	
027	
028	
029	
030	
031	
032	
033	
034	
035	
036	
037	
038	
039	
040	
041	

DMX	Pattern
042	
043	
044	
045	
046	
047	
048	
049	
050	
051	
052	
053	
054	
055	
056	
057	
058	
059	



