Instruction Manual

VOLKS|LICHT
SPOT

from software version 1.07
(Instruction version 1.01)

Notes:
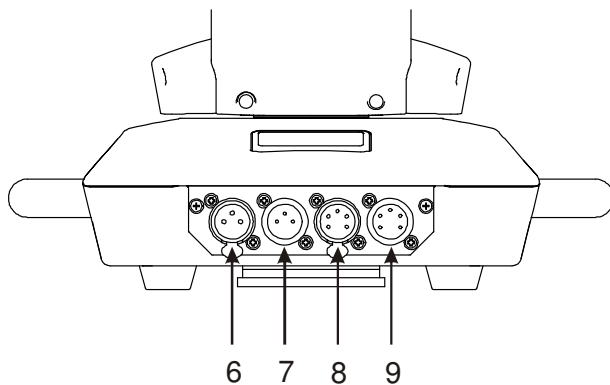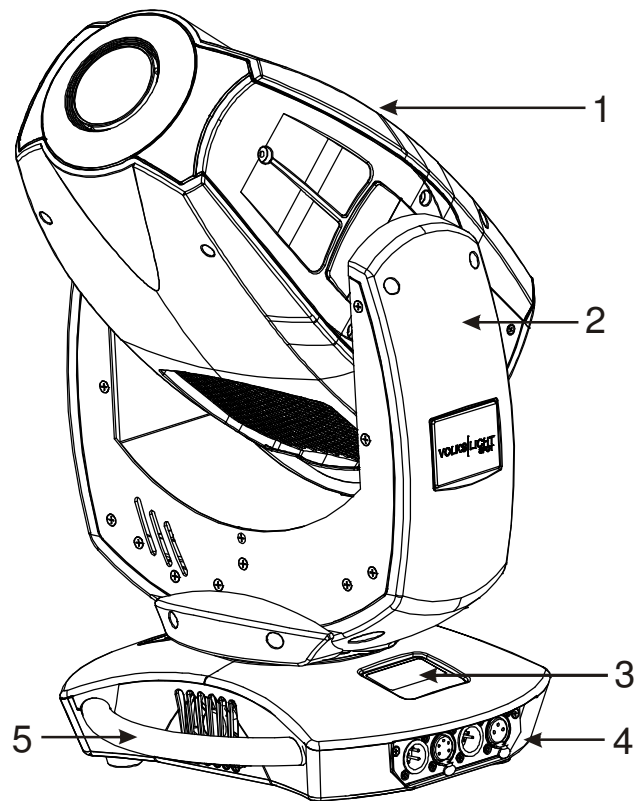
Table of content

1   Description of Device

1. Moving head (actively cooled)

2. Arm with various cooling vents

3. LCD-Display/Menu (data entry)

4. Base with various connectors and Camlock mounting system

5. Carrying handle. Also used to attach the safety cable

6. DMX- Output (3 pin)

7. DMX- Input (3 pin)

8. DMX- Output (5 pin)

9. DMX- Input (5 pin)
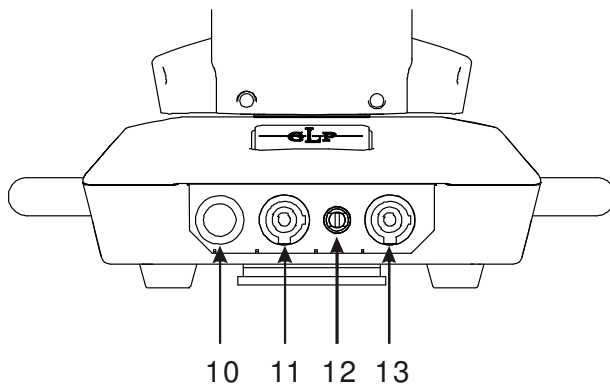
10. Power On-/Off

11. Power-In (powerCON/blue)

12. Micro-fuse 5x20mm, T5A

13. Power-Out (powerCON/grey)

1.1 Safety Instructions

The **VOLKSLICHT SPOT** 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. 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 --**

5. Use only one DMX Input / Output at the same time.

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 chapter 2. Operating the **VOLKSLICHT SPOT** 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 Mounting

The **VOLKSLICHT SPOT** is fully operational whether it hangs or is mounted to a wall. It can also be operated while standing on the floor. Keep a safety distance of 0.5 m from any easily inflammable materials (decoration etc.).
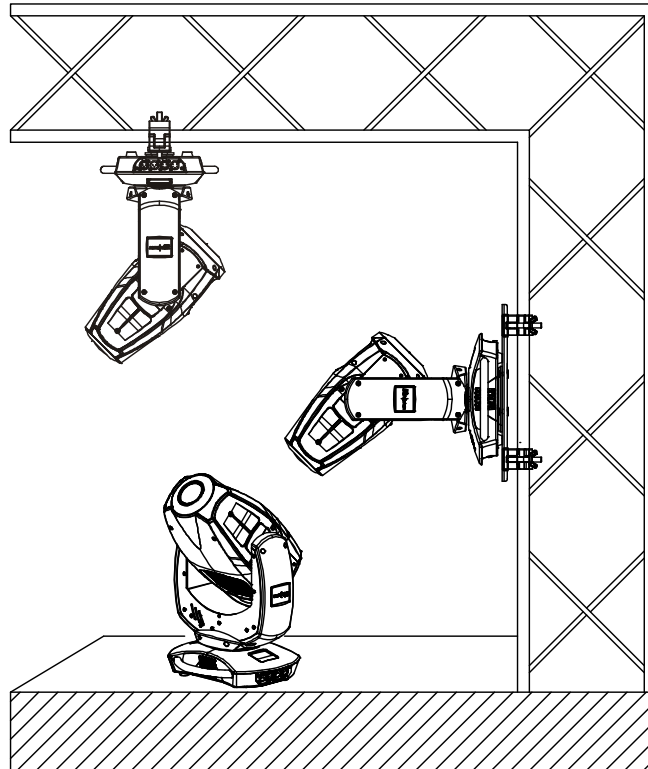
⚠	**Pay attention to the regulations of: BGV C1 (former VBG 70), DIN VDE 0711-217 and BGI 810-3.** **The installation shall be done by qualified staff only.**

For the various mounting positions of the **VOLKSLICHT SPOT** (standing on the floor, sideways or hanging) different accessories kits are available. Using any required kits, along with the standard mounting connectors on the base of the fixture, will ensure a safe and firm installation. Always ensure that mounting hardware is tightened securely to the fixture base and checked on a regular basis for security.

2.1.1 Mounting on the floor (upright)

The **VOLKSLICHT SPOT** is equipped with four robust rubber feet. This allows a firm and safe stand on even surfaces.

2.1.2 Mounting in hanging position (Head down)

To operate the **VOLKSLICHT SPOT** in a hanging position, please attach one half-coupler centrically with a M10 thread bolt (max. length 11 mm). You can also use a dedicated mounting plate which is attached to the fixture through two Camlock quick connectors → see section below.

2-Camlock

M10
length max.11mm
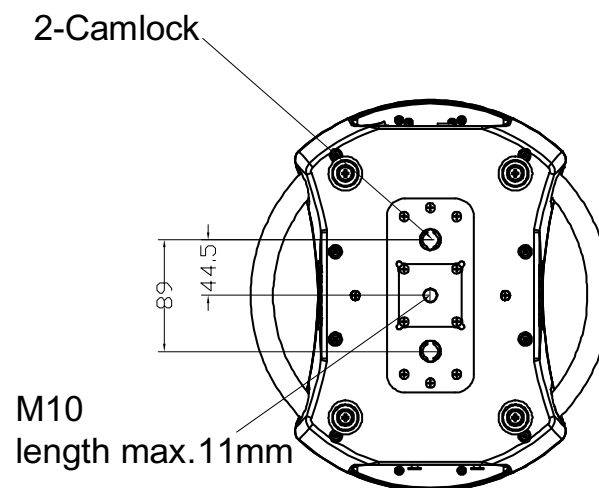
2.1.3 Mounting in a sideway Position

In some countries, law dictates the number of hanging points required to support the fixture if mounted in a sideways position. If it is required to use a minimum of two points, then you should use the optional bracket that connects to the fixture via the quarter turn Camlock connectors. An optional 'Trussbar' accessory is also available from GLP which gives the added advantage of being able to move the half couplers to avoid cross chords on any truss piece.
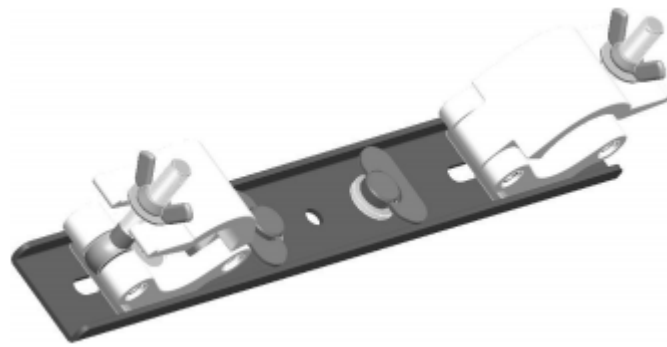
1 - Optional Trussbar

2.2 Securing the Device

Regardless of the mounting method of the **VOLKSLICHT SPOT** you'll have to use a stipulated safety wire. Attach it through one of the two handles 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.

2.3 Connections

2.3.1 Power Supply

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

Connected load 400 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.

2.3.2 NEUTRIK® powerCON

The **VOLKSLICHT SPOT** is fitted with NEUTRIK® powerCON locking 3 conductor AC connectors. Up to max. 11 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.
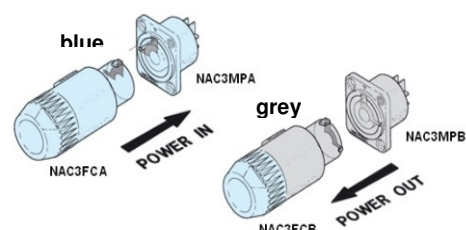
Picture: Courtesy of NEUTRIK® AG

2.3.3 DMX

USITT DMX-512 Standard input/output in 3 & 5 pin connectors.

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

5 pin: 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 illuminated control board on the upper side of the base. It allows you to make all necessary adjustments of the system.
The current DMX address will be shown on the top level of the menu. Use the **Enter**-key to adjust the DMX address or press the **Menu**-key to reach the next level of the menu where other settings can be made.
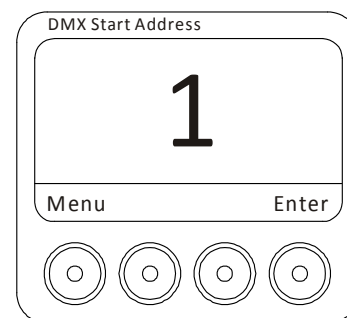
With the **Enter-**key you reach the main menu. Afterwards you can navigate through the menu with the **Up**/**Down-**keys. Push the **Enter-**key to get in the next menu level or to confirm your settings. Adjust them and set functions **ON**/**OFF** with the **Up**/**Down-**keys. Confirm and save it with the **Enter-**key (the display shows **OK**).
Use the **Back**-key to cancel the entry and to go back to the main menu.
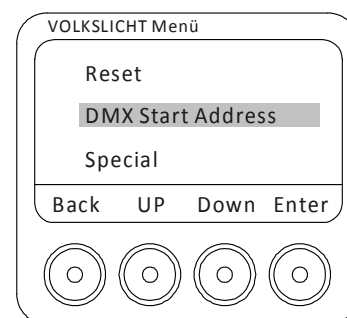
← BACK - ENTER →

Level1	Level 2	Level 3	Level 4	Remark
DMX Start Address				Define the DMX start address
Special	**Manual DMX**			Manual control of all system functions
		Pan		Manual control for Pan (X-movement)
		Iris		Manual control for the Iris
		Focus		Manual control for the Focus
		Gobo2		Manual control for the Gobo 2
		Rot Gobo 1		Manual control for the rotation of Gobo 1
		Gobo 1		Manual control for the Gobo 1
		P/T Speed		Manual control for Pan/Tilt Speed
		P/T Movement		Manual control for Pan/Tilt Movement

↑ DOWN - UP ↑

← BACK - ENTER →

← DOWN - UP →

Level1	Level 2	Level 3	Level 4	Remark
		Special		Manual control for special
		White Temp		Manual control for White Temperature
		Dimmer		Manual control for the Dimmer
		Shutter		Manual control for the Shutter
		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 of the Display contrast
		Pan Offset?		Calibration of the Pan-Offset
		Tilt Offset?		Calibration of the Tilt-Offset
		Gobo 2		Calibration of the Gobo 2-Offset
		Gobo 1		Calibration of the Gobo 1-Offset
		Prism		Calibration of the Prism-Offset
		Focus		Calibration of the Focus-Offset
		LED Adjust		
			White Adj. Red	Calibration of Red for a uniform White (white balance)
			Offset Adj. Blue	Calibration of Blue offset
			Offset Adj. Green	Calibration of Green offset
			Offset Adj. Red	Calibration of Red offset
			White Adj. Blue	Calibration of Blue for a uniform White (white balance)
			White Adj. Green	Calibration of Green for a uniform White (white balance)
		Clear EEPROM		Erase EEPROM memory
		Diagnose		Diagnose functions (For authorized service only)
	Temperature Head			Reads out the temperature of the head
	Default Full Feature			Resets all functions to their default values
	Display Black out			Auto switch-off display illumination after 10 seconds
	DMX Hold			"Holds" last DMX signal in case of signal loss

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Level1	Level 2	Level 3	Level 4	Remark
	Set 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 Monitor			Indicates the presently received DMX signal per DMX channel
		Pan		Instantaneous value for Pan
		Iris		Instantaneous value for Iris
		Focus		Instantaneous value for Focus
		Gobo2		Instantaneous value for Gobo 2
		Rot Gobo 1		Instantaneous value for Rotating Gobo 1
		Gobo 1		Instantaneous value for Gobo 1
		P/T Speed		Instantaneous value for Pan/Tilt Speed
		P/T Movement		Instantaneous value for Pan/Tilt Movement
		Special		Instantaneous value for Special
		White Temp		Instantaneous value for White Temperature
		Dimmer		Instantaneous value for Dimmer
		Shutter		Instantaneous value for Shutter
		Blue		Instantaneous value for Blue
		Green		Instantaneous value for Green
		Red		Instantaneous value for Red
		Color Wheel		Instantaneous value for Color Wheel
		Tilt		Instantaneous value for Tilt
Self Test Program				Initiates a self-test program
Live Time				Indicates the overall operation time of the system
Set DMX Mode				Select the desired DMX Mode
	Normal			Fixture works in "Normal" mode
	High Res.			Fixture works in "High Resolution" mode
	Compressed			Fixture works in "Compressed" mode
Position Feedback				On/Off
Reverse Pan				ON/OFF: Invert Pan movements
Reverse Tilt				ON/OFF: Invert Tilt movements

← BACK - ENTER →

Level1	Level 2	Level 3	Level 4		Remark
Reset					RESET and new calibration for all fixture functions

4 DMX Channel Selection (DMX Protocol)

Normal-Mode 20 DMX channels

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 660°		0..255	00..FF	0..100
2) PAN-fine	High- Pos ... High- Pos + 2,6° (16 Bit)		0..255	00..FF	0..100
3) Tilt-coarse	0 .. 300°		0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1,2° (16 Bit)		0..255	00..FF	0..100
5) Color (fixed)	Colors adjustable via RGB		0..7	00..07	0..2,5
	Color 01 - Red [1]		8..15	08..0F	3..5,5
	Color 02 - Amber [1]		16..23	10..17	6..8,5
	Color 03 - Warm Yellow [1]		24..31	18..1F	9..12,5
	Color 04 - Yellow [1]		32..39	20..27	13..15,5
	Color 05 - Green [1]		40..47	28..2F	16..18,5
	Color 06 - Turquoise [1]		48..55	30..37	19..21,5
	Color 07 - Cyan [1]		56..63	38..3F	22..24,5
	Color 08 - Blue [1]		64..71	40..47	25..27,5
	Color 09 - Lavender [1]		72..79	48..4F	28..30,5
	Color 10 - Mauve [1]		80..87	50..57	31..34,5
	Color 11 - Magenta [1]		88..95	58..5F	35..37,5
	Color 12 - Pink [1]		96..103	60..67	38..40,5
	White - CTO		104..111	68..6F	41..43,5
	White		112..119	70..77	44..46,5
	White - CTB		120..127	78..7F	47..49,5
	Rainbow Effect Stop [2]		128	80	50
	Rainbow Effect [3]	slow - fast	129..223	81..DF	51..88
	Rainbow Effect, random colors	slow - fast	224.255	E0..FF	89..100
6) Red	Color mixing system - Red	0 - 100%	0..255	00..FF	0..100
7) Green	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100
8) Blue	Color mixing system - Blue	0 - 100%	0..255	00..FF	0..100
9) Shutter	Shutter closed		0..15	00..0F	0..5,5
	Random Pulse effect [4]	slow - fast	16..47	10..2F	6..18,5
	Up-dimming then Shutter closing (random patterns) [4]	slow - fast	48..79	30..4F	19..31
	Shutter open then down-dimming (random patterns) [4]	slow - fast	80..111	50..6F	32..43
	Up-dimming then down-dimming (random patterns) [4]	slow - fast	112..143	70..8F	44..56
	Strobe effect pause	5s .. 1s	144..199	A0..C7	57..77
	Strobe effect, slow - fast	1 Hz .. 10 Hz	200..239	C8..EF	78..94
	Shutter open		240..255	F0..FF	94.4..100
10) Dimmer	Dimmer	0 - 100%	0..255	0..FF	0..100
11) Color temp.	Continuous color temperature correction between 10000k - 2500k	Applicable for ALL colors	0..255	0..FF	0..100

Channel	Function	Time and Value	DMX	HEX	%
12) Gobo 1 (indexed)	Open position		0..15	0..0F	0..5.5
	Gobo 1		16..31	10..1F	6..12
	Gobo 2		32..47	20..2F	12.5..18
	Gobo 3		48..63	30..3F	19..24.5
	Gobo 4		64..79	40..4F	25..31
	Gobo 5		80..95	50..5F	31.5..37
	Gobo 6		96..111	60..6F	38..43.5
	Gobo 7		112.129	70..81	44..50.5
	Gobo rotation CCW	slow → fast	130..192	82..C0	51..75
	Gobo rotation CW	fast → slow	193..254	C1..FE	75.5..99
	Gobo rotation Stop		255	FF	100
13) Gobo 1 Posi./Rot.	Gobo position 0 ... 540°		0..127	00..7F	0..49
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation CW	slow → fast	130..192	82..C0	51..75
	Gobo Rotation CCW	fast → slow	193..254	C1..FE	76..99
14) Gobo 2 (fixed)	Open position		0..7	00..07	0..2.5
	Gobo 1		8..15	08..0F	3..5.5
	Gobo 2		16..23	10..17	6..9
	Gobo 3		24..31	17..1F	9.5..12
	Gobo 4		32..39	20..27	12.5..15
	Gobo 5		40..47	28..2F	15.5..18
	Gobo 6		48..56	30..38	18.5..22
	Gobo 7		57..63	39..3F	23..24.5
	Gobo 8		64..71	40..47	25..27.5
	Gobo 9		72..79	48..4F	28..31
	Gobo 10		80..87	50..57	31.5..34
	Gobo 11		88..95	58..5F	34.5..37
	Gobo wheel rotation CCW	slow → fast	130..193	82..C1	51..75.5
	Gobo wheel rotation CW	fast → slow	194..254	C2..FE	76..99
	Gobo wheel rotation Stop		255	FF	100
15) Focus	Continues Focus	infinity – near	0 .. 255	0..FF	0..100
16) Prism	Prism swing out		0..5	00..05	0..2
	Prism position		6..127	06..7F	0..50
	Prism rotation stop		128..129	80..81	50,1
	Prism rotation		130..253	82..FD	51..99
	Prism by audio	slow	254	FE	99.5
	Prism by audio	fast	255	FF	100
17) Iris	Iris	open - close	0 .. 255	00..FF	0 ..100
18) Special	**RESET**	keep for 3 sec.	**250..255**	**FA..FF**	**98..100**
	Goboshake – Gobo 2	slow → fast	80..143	50..8F	31..56
	Goboshake – Gobo 1	slow → fast	16..79	10..4F	6..30
	Gobo – short cut off		8..15	08..0F	3..5

Channel	Function			Time and Value	DMX	HEX	%
19) Move-ment	**No movement**				0	0	0
	Movement	**Size**	**Phase**				
	PAN	1	0°		01..01	01..01	0,5
		1	90°		02..03	02..03	1,0
		1	180°		04..05	04..05	1,7
		1	270°		06..07	06..07	2,5
	PAN	2	0°		08..09	08..09	3,3
		2	90°		10..11	0A..0B	4,1
		2	180°		12..13	0C..0D	4,9
		2	270°		14..15	0E..0F	5,7
	PAN	3	0°		16..17	11..11	6,5
		3	90°		18..19	12..13	7,3

Channel	Function			Time and Value	DMX	HEX	%
		3	180°		20..21	14..15	8,0
		3	270°		22..23	16..17	8,8
	PAN	4	0°		24..25	18..19	9,6
		4	90°		26..27	1A..1B	10,4
		4	180°		28..29	1C..1D	11,2
		4	270°		30..31	1E..1F	12
	TILT			size / phase see also PAN	32..63	20..3F	13..25
	PAN / TILT			size / phase see also PAN	64..95	40..5F	26..37
	PAN / TILT (inverse)			size / phase see also PAN	96..127	60..7F	38..50
	Circle			size / phase see also PAN	128..159	80..9F	51..62
	Circle (inverse)			size / phase see also PAN	160..191	A0..BF	63..75
	Lying eight			size / phase see also PAN	192..223	C0..DF	76..87
	Random movement			size see also PAN	224..255	E0..FF	88..100
20) Speed Pan/Tilt	Pan/Tilt relative movement				0..01	00..01	0..1
	Pan/Tilt slow – fast Use this channel also for the SPEED of the movements				02..255	02..FF	1.5..100

Compressed-Mode 17 DMX channels

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 660°		0..255	00..FF	0..100
2) PAN-fine	High- Pos ... High- Pos + 2,6° (16 Bit)		0..255	00..FF	0..100
3) Tilt-coarse	0 .. 300°		0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1,2° (16 Bit)		0..255	00..FF	0..100
5) Color (fixed)	Colors adjustable via RGB		0..7	00..07	0..2,5
	Color 01 - Red [1]		8..15	08..0F	3..5,5
	Color 02 - Amber [1]		16..23	10..17	6..8,5
	Color 03 - Warm Yellow [1]		24..31	18..1F	9..12,5
	Color 04 - Yellow [1]		32..39	20..27	13..15,5
	Color 05 - Green [1]		40..47	28..2F	16..18,5
	Color 06 - Turquoise [1]		48..55	30..37	19..21,5
	Color 07 - Cyan [1]		56..63	38..3F	22..24,5
	Color 08 - Blue [1]		64..71	40..47	25..27,5
	Color 09 - Lavender [1]		72..79	48..4F	28..30,5
	Color 10 - Mauve [1]		80..87	50..57	31..34,5
	Color 11 - Magenta [1]		88..95	58..5F	35..37,5
	Color 12 - Pink [1]		96..103	60..67	38..40,5
	White - CTO		104..111	68..6F	41..43,5
	White		112..119	70..77	44..46,5
	White - CTB		120..127	78..7F	47..49,5
	Rainbow Effect Stop [2]		128	80	50
	Rainbow Effect [3]	slow - fast	129..223	81..DF	51..88
	Rainbow Effect, random colors	slow - fast	224.255	E0..FF	89..100
6) Red	Color mixing system - Red	0 - 100%	0..255	00..FF	0..100
7) Green	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100
8) Blue	Color mixing system - Blue	0 - 100%	0..255	00..FF	0..100
9) Shutter	Shutter closed		0..15	00..0F	0..5,5
	Random Pulse effect [4]	slow - fast	16..47	10..2F	6..18,5
	Up-dimming then Shutter closing (random patterns) [4]	slow - fast	48..79	30..4F	19..31

Channel	Function	Time and Value	DMX	HEX	%
	Shutter open then down-dimming (random patterns) 4)	slow - fast	80..111	50..6F	32..43
	Up-dimming then down-dimming (random patterns) 4)	slow - fast	112..143	70..8F	44..56
	Strobe effect pause	5s .. 1s	144..199	A0..C7	57..77
	Strobe effect, slow - fast	1 Hz .. 10 Hz	200..239	C8..EF	78..94
	Shutter open		240..255	F0..FF	94.4..100
10) Dimmer	Dimmer	0 - 100%	0..255	0..FF	0..100
11) Gobo 1 (indexed)	Open position		0..15	0..0F	0..5.5
	Gobo 1		16..31	10..1F	6..12
	Gobo 2		32..47	20..2F	12.5..18
	Gobo 3		48..63	30..3F	19..24.5
	Gobo 4		64..79	40..4F	25..31
	Gobo 5		80..95	50..5F	31.5..37
	Gobo 6		96..111	60..6F	38..43.5
	Gobo 7		112.129	70..81	44..50.5
	Gobo rotation CCW	slow → fast	130..192	82..C0	51..75
	Gobo rotation CW	fast → slow	193..254	C1..FE	75.5..99
	Gobo rotation Stop		255	FF	100
12) Gobo 1 Posi./Rot.	Gobo position 0 ... 540°		0..127	00..7F	0..49
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation CW	slow → fast	130..192	82..C0	51..75
	Gobo Rotation CCW	fast → slow	193..254	C1..FE	76..99
13) Gobo 2 (fixed)	Open position		0..7	00..07	0..2.5
	Gobo 1		8..15	08..0F	3..5.5
	Gobo 2		16..23	10..17	6..9
	Gobo 3		24..31	17..1F	9.5..12
	Gobo 4		32..39	20..27	12.5..15
	Gobo 5		40..47	28..2F	15.5..18
	Gobo 6		48..56	30..38	18.5..22
	Gobo 7		57..63	39..3F	23..24.5
	Gobo 8		64..71	40..47	25..27.5
	Gobo 9		72..79	48..4F	28..31
	Gobo 10		80..87	50..57	31.5..34
	Gobo 11		88..95	58..5F	34.5..37
	Gobo wheel rotation CCW	slow → fast	130..193	82..C1	51..75.5
	Gobo wheel rotation CW	fast → slow	194..254	C2..FE	76..99
	Gobo wheel rotation Stop		255	FF	100
14) Focus	Continues Focus	infinity – near	0 .. 255	0..FF	0..100
15) Prism	Prism swing out		0..5	00..05	0..2
	Prism position		6..127	06..7F	0..50
	Prism rotation stop		128..129	80..81	50,1
	Prism rotation		130..253	82..FD	51..99
	Prism by audio	slow	254	FE	99.5
	Prism by audio	fast	255	FF	100
16) Iris	Iris	open - close	0 .. 255	00..FF	0 ..100
17) Special	**RESET**	keep for 3 sec.	**250..255**	**FA..FF**	**98..100**
	Goboshake – Gobo 2	slow → fast	80..143	50..8F	31..56
	Goboshake – Gobo 1	slow → fast	16..79	10..4F	6..30
	Gobo – short cut off		8..15	08..0F	3..5

Extended-Mode 20 DMX channels

Channel	Function	Time and Value	DMX	HEX	%
1) PAN-coarse	0 .. 660°		0..255	00..FF	0..100
2) PAN-fine	High- Pos ... High- Pos + 2,6° (16 Bit)		0..255	00..FF	0..100
3) Tilt-coarse	0 .. 300°		0..255	00..FF	0..100
4) Tilt-fine	High- Pos … High- Pos + 1,2° (16 Bit)		0..255	00..FF	0..100
5) Red-coarse	Color mixing system - Red	0 - 100%	0..7	00..07	0..2,5
6) Red-fine	Color mixing system – Red low		0..255	00..FF	0..100
7) Green-coarse	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100
8) Green-fine	Color mixing system – Green low				
9) Blue coarse	Color mixing system - Blue	0 - 100%			
10) Blue-fine	Color mixing system – Blue low		0..255	00..FF	0..100
11) Shutter	Shutter closed		0..15	00..0F	0..5,5
	Random Pulse effect [4]	slow - fast	16..47	10..2F	6..18,5
	Up-dimming then Shutter closing (random patterns) [4]	slow - fast	48..79	30..4F	19..31
	Shutter open then down-dimming (random patterns) [4]	slow - fast	80..111	50..6F	32..43
	Up-dimming then down-dimming (random patterns) [4]	slow - fast	112..143	70..8F	44..56
	Strobe effect pause	5s .. 1s	144..199	A0..C7	57..77
	Strobe effect, slow - fast	1 Hz .. 10 Hz	200..239	C8..EF	78..94
	Shutter open		240..255	F0..FF	94.4..100
12) Dimmer-coarse	Dimmer	0 - 100%	0..255	0..FF	0..100
13) Dimmer-fine	Dimmer low				
14) Gobo 1 (indexed)	Open position		0..15	0..0F	0..5.5
	Gobo 1		16..31	10..1F	6..12
	Gobo 2		32..47	20..2F	12.5..18
	Gobo 3		48..63	30..3F	19..24.5
	Gobo 4		64..79	40..4F	25..31
	Gobo 5		80..95	50..5F	31.5..37
	Gobo 6		96..111	60..6F	38..43.5
	Gobo 7		112..129	70..81	44..50.5
	Gobo rotation CCW	slow → fast	130..192	82..C0	51..75
	Gobo rotation CW	fast → slow	193..254	C1..FE	75.5..99
	Gobo rotation Stop		255	FF	100
15) Gobo 1 Posi./Rot.	Gobo position 0 ... 540°		0..127	00..7F	0..49
	Gobo rotation STOP		128..129	80..81	50
	Gobo rotation CW	slow → fast	130..192	82..C0	51..75
	Gobo Rotation CCW	fast → slow	193..254	C1..FE	76..99
16) Gobo 2 (fixed)	Open position		0..7	00..07	0..2.5
	Gobo 1		8..15	08..0F	3..5.5
	Gobo 2		16..23	10..17	6..9
	Gobo 3		24..31	17..1F	9.5..12
	Gobo 4		32..39	20..27	12.5..15
	Gobo 5		40..47	28..2F	15.5..18
	Gobo 6		48..56	30..38	18.5..22

Channel	Function	Time and Value	DMX	HEX	%
	Gobo 7		57..63	39..3F	23..24.5
	Gobo 8		64..71	40..47	25..27.5
	Gobo 9		72..79	48..4F	28..31
	Gobo 10		80..87	50..57	31.5..34
	Gobo 11		88..95	58..5F	34.5..37
	Gobo wheel rotation CCW	slow → fast	130..193	82..C1	51..75.5
	Gobo wheel rotation CW	fast → slow	194..254	C2..FE	76..99
	Gobo wheel rotation Stop		255	FF	100
17) Focus	Continues Focus	infinity – near	0 .. 255	0..FF	0..100
18) Prism	Prism swing out		0..5	00..05	0..2
	Prism position		6..127	06..7F	0..50
	Prism rotation stop		128..129	80..81	50,1
	Prism rotation		130..253	82..FD	51..99
	Prism by audio	slow	254	FE	99.5
	Prism by audio	fast	255	FF	100
19) Iris	Iris	open - close	0 .. 255	00..FF	0 ..100
20) Special	**RESET**	keep for 3 sec.	**250..255**	**FA..FF**	**98..100**
	Goboshake – Gobo 2	slow → fast	80..143	50..8F	31..56
	Goboshake – Gobo 1	slow → fast	16..79	10..4F	6..30
	Gobo – short cut off		8..15	08..0F	3..5

[1] **Color**

The predefined colors can be used as start colors for the Rainbow effect. First select a desired start color, then activate the rainbow effect. All **VOLKSLICHT SPOT** will then begin from that color and execute the rainbow effect synchronously. Different **VOLKSLICHT SPOT** 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**

This will pause this function. After resuming the rainbow-effect will be continued with the current color.

[3] **The Rainbow-effect**

This will run synchronously only if it is started from one of the predefined colors (see also [1] before).

[4] **ATTENTION Shutter:**

Please note that shutter frequencies over 10 Hz are prohibited in some countries. Especially frequencies in the range of 5 - 12 Hz can possibly cause epileptic seizures → continuous blink irritation with a latency period of min. 70 ms. Please also refer to the relevant legislation of each country (For Germany for example: BGI 810-4 (Anhang 2) "Sicherheit bei Produktionen und Veranstaltungen - Scheinwerfer").
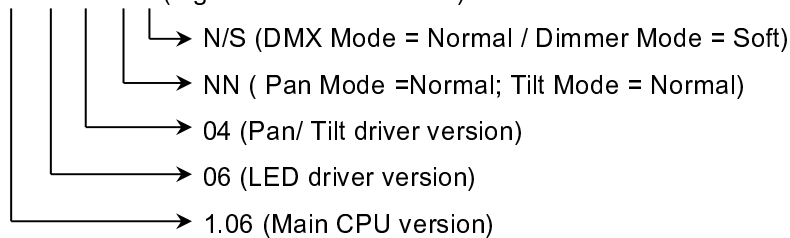
Random Shutter Timing:

Function	DMX value XX to YY	timing
Random Pulse Effect	16..46	60 sec..30 sec
	47	0.3 sec..0.1 sec
Dimming in then shutter close (random)	48..78	60 sec..30 sec
	79	0.3 sec..0.1 sec

Shutter open then dimming out (random)	80..110	60 sec..30 sec
	111	0.3 sec..0.1 sec
Dimming in then dimming out (random)	112..142	60 sec..30 sec
	143	0.3 sec..0.1 sec

Additional Display Indications

As a default you'll find the following additional information in the first row of the LCD display:

Vxx/xx/xx/xx/x (e.g. V1.06/06/04/NN/NS)

→ N/S (DMX Mode = Normal / Dimmer Mode = Soft)

→ NN (Pan Mode =Normal; Tilt Mode = Normal)

→ 04 (Pan/ Tilt driver version)

→ 06 (LED driver version)

→ 1.06 (Main CPU version)

5 Changing Gobos

The **VOLKSLICHT SPOT** is equipped both with Aluminum- and Glass gobos (outside diameter 23 mm, image size max. 19 mm). When using customized Gobos like company logos, the recommended image size is 17 mm. You can use either Aluminum (thickness = 0.5 mm) or glass gobos (thickness = 1.1 - 3.0 mm).

Only gobos on wheel 1 are rotating and interchangeable. Gobos on wheel 2 are fixed.

5.1 General remarks for changing gobos

All gobos or other optical effects have a dedicated mounting direction. To prevent undesired damages and to optimize the optical performance of your gobos, all gobos should be mounted with their reflecting side towards the LED light source.

a. Aluminum gobos must be mounted with their unpainted side towards the LED light source, and the black painted side towards the front lens.

b. Glass gobos must be mounted with their reflecting, or coated side, towards the LED light source.

c. To find out which is the coated side of a glass gobo, take a pencil and place the point gently on the gobo. If you have touched the coated side, there will be no distance between the pencil tip and its reflection in the gobo. If you have touched the uncoated side, there will be a small distance between the

pencil tip and its reflection

Attention: Customized gobos like company logos, or those with writing also need to be placed in the holder with the correct orientation to ensure that the projected image reads correctly. Place the side of the gobo which reads correctly towards the LED light engine to ensure that it projects properly. Remember that the reflective side of the gobo should also be towards the LED light source, so please instruct the gobo manufacturer accordingly when having customized gobos made.

Glass Gobos with a structured surface must be mounted with the structured surface towards the LED light source and the flat side towards the front lens.

5.2 Changing rotating gobos (wheel 1)

1. **Attention: The fixture must be disconnected from the mains supply!**

2. Open the fixture, using the quarter turn screws on the top cover.

3. Gobos are held in their respective holder by a metal spring alongside the outer diameter. Remove this spring carefully using for example a small screwdriver.

4. Take the gobo out of its holder. Pay attention not to drop it into the fixture.

5. Fit the new gobo into the holder securing it with the metal spring tightly.

6. Close the cover of the fixture again.

6   Maintaining and Cleaning the VOLKSLICHT SPOT

The **VOLKSLICHT SPOT** is a low maintenance fixture. It is only necessary to clean the air inlets and outlets as well as the optical LED lenses from time to time. For safe operation it is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on, or within, the fixture. If they do, the fixture's light output will be significantly reduced, and damages to the fixture may occur. Regular cleaning will not only ensure the maximum light output, but will also allow the fixture to operate reliably throughout its entire life.

A soft lint-free cloth moistened with any good glass cleaning fluid is recommended. Under no circumstances should alcohol or solvents be used to clean the fixture or its lenses!

6.1 Safety regulations

- **Disconnect the fixture from the mains power before commencing any maintenance work!**

- Wait minimum 15 minutes after removing the power to allow the fixture to cool down.

6.2 Circumference and Interval (rule-of-thumb)

The maintenance schedule of any given fixture depends on the installation environment. Hence no specific guidelines can be given. The cleaning intervals given below are suggestions, based on practical experience. We suggest that you start with these and develop your own maintenance schedule as you see the fixtures performance in your specific environment.

Maintenance Task	Interval	How
Outside optic	weekly	soft cloth and glass cleaning fluid
Gobos	yearly	vacuum cleaner, airbrush, etc.
Glass gobos	yearly	soft cloth and glass cleaning fluid
Prism	yearly	soft cloth and glass cleaning fluid
Iris	yearly	vacuum cleaner, airbrush, etc.
Inside lens	yearly	soft cloth no glass cleaning fluid
Fan and air channel	monthly	vacuum cleaner, airbrush, etc.
Moveable parts	yearly	suitable fatty oil

Attention:

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

7 Technical Specifications

Power supply	
Power consumption	400 VA (Watt)
Power Input/Output	~100-240 V AC, 50-60 Hz (auto sensing input)
Power connectors	NEUTRIK® powerCON Power-in: NAC3FCA / NAC3MPA (blue) Power-out: NAC3FCB / NAC3MPB (grey)
Fuse protection	Micro-fuse 5x20 mm, T5A
Operational Parameters	
Max. Ambient Temperature	45°C / 113°F (integrated overheating switch)
Mounting Position	Any (see chapter mounting)
Lighting System - Additive Color mixing	
LED Type	300 Watt RGB LED Light Engine
Lifetime	Average service life: 20,000h
Wavelength optimized for maximum presentable color space	
Optical System	
Fixed beam angle 13°	
Variable CTO control from 2500k - 10.000k	
Focus	
Motorized Focus, 2m - infinity	
Shutter / Dimmer, electrical	
Strobe- Effect with variable speed between 1 - 10 flashes per second, Random-Strobe, Pulse-Effects	
Continuous Dimmer 0 - 100%	
Prism	
Rotating 3-facet prism, bi-directional and variable in speed	
Gobos	
Gobo wheel 1: 7 interchangeable rotating and indexed gobos plus open, variable speed and bi-directional Gobo wheel 2: 11 fixed gobos plus open	
Gobo dimensions: Glass gobo thickness: 1.1 - 3.0mm Aluminum gobo thickness: 0.5mm / Outside diameter: 23 mm / Image size: max. 19 mm. For customized gobos like company logos and text the recommended image size is 16 mm.	
DMX Control	
Standard USITT DMX-512, 3&5 pin XLR; [+] = Pin 3 [-] = Pin 2 [Ground] = Pin 1 [4/5 n.c.] The DMX- start address is [001] on DMX channel 1.	
Pan/Tilt (8/16 Bit)	
Pan- movement	**660° in min. 2 seconds, with position feedback**
Tilt- movement	**300° in min. 1 seconds, with position feedback**
Weights and Measures	
Width of the base	**320**
Length of the base	**288 mm (incl. handles)**
Height (head vertical)	**540 mm**
Weight (net)	**15 kg**

8 System dimensions (in mm)
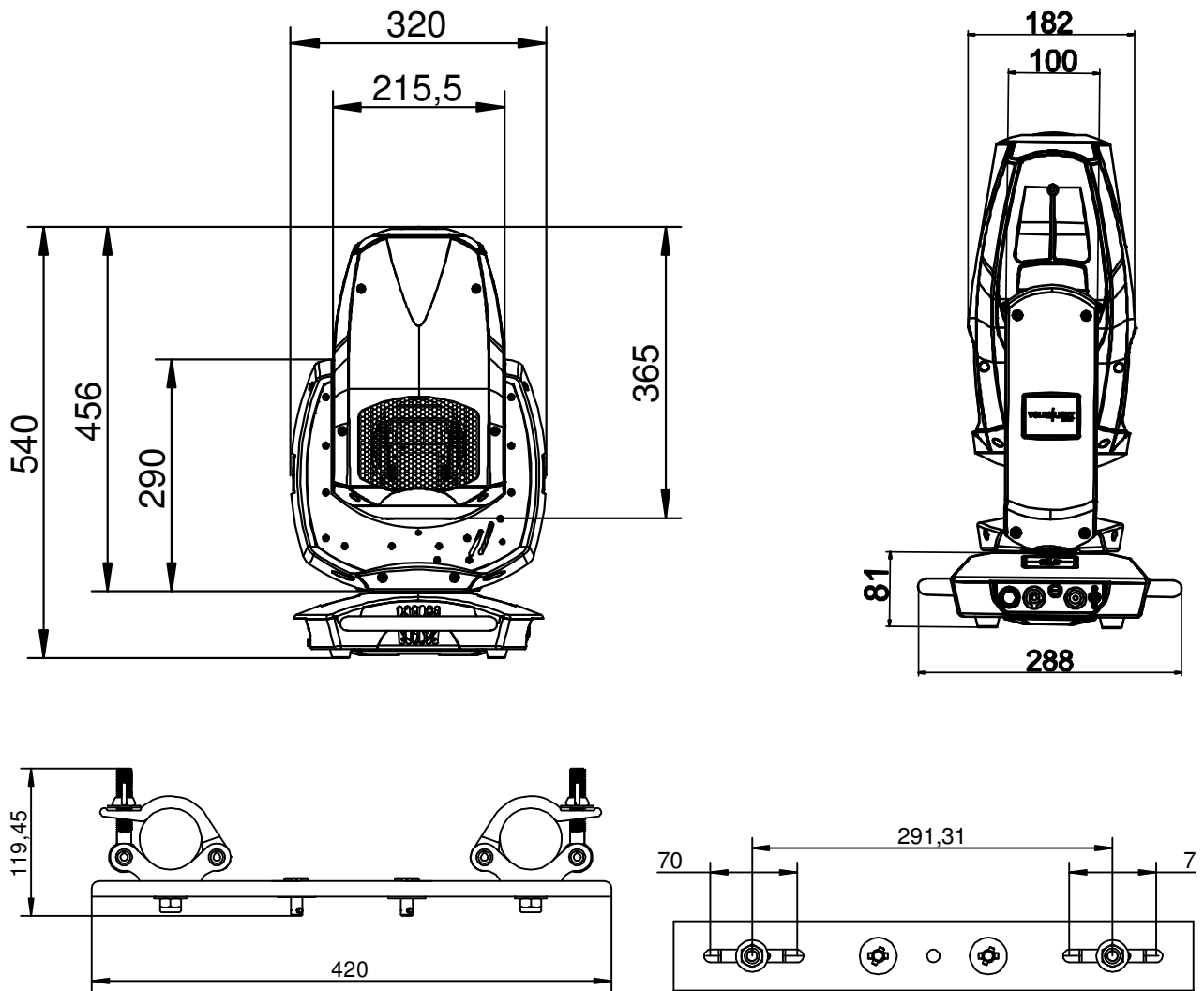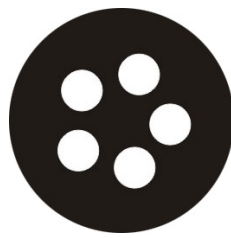
Rotating Gobo wheel

Gobo 1

Gobo 2

Gobo 3

Gobo 4

Gobo 5
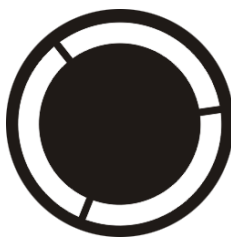
Gobo 6

Gobo 7

Fixed Gobo wheel

Gobo 1

Gobo 2

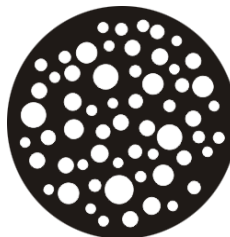

Gobo 3

Gobo 4

Gobo 5

Gobo 6

Gobo 7

Gobo 8

Gobo 9

Gobo 10

Gobo 11

9 Index