

# Instruction Manual

# JDC1



From Software Version 1.35



## JDC1 Instruction Manual

Revision 1.0, Applies from firmware version 1.35

July, 2017

The JDC1 Strobe and this instruction manual are intended for use by experienced professionals with the knowledge and skills to set up, operate, and maintain high-powered, remotely controlled lighting equipment safely and efficiently.

Save this manual for future reference. Replacement copies and updates are available for download in electronic format from [www.glp.de](http://www.glp.de).

The information in this manual is subject to change without notice.

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## 1 Safety Precautions

The JDC1 and this instruction manual are intended for use by experienced professionals with the knowledge and skills to set up, operate, and maintain high-powered, remotely controlled lighting equipment safely and efficiently. These operations require expertise that is not provided in this manual.

Read this manual and familiarize yourself with the safety precautions before installing or using the product. The manufacturer will take no responsibility for damages or harm caused by disregard for the information in this manual.

Should you have questions about the safe operation of the JDC1, please contact an authorized GLP distributor, a list of which can be found at [www.glp.de](http://www.glp.de).

### 1.1 **WARNING! Hazards that Could Result in Serious Injury or Death**

**Do not look directly into the beam of light:** brief exposure can cause eye injury. Avoid exposing your eyes to direct radiation! Do not view the light output with optical instruments or any device that may concentrate the beam.

**Do not illuminate surfaces within 1 M (3.3 ft.) of the fixture.** The light output is powerful enough to cause burns or fire in illuminated objects at near range.

**Hot surfaces!** Surfaces on the head reach temperatures up to 160° C (320° F). Avoid touching lights during the operation. This can cause injuries and/or damage. Avoid placing lighting fixtures in locations where there is risk of accidental contact by people or objects. Allow fixtures to cool before handling.

**Do not place any filters or other objects on the glass plate. Do not block the light output in any way.** The glass becomes extremely hot during operation and can melt or ignite objects in contact with the surface. The glass must remain clean and unobstructed to prevent fire hazard and fixture damage.

**Installation shall be performed by qualified personnel only in accordance with local regulations.** To prevent falls, suspend the JDC1 with hardware specifically designed and rated for the purpose and a form of backup attachment such as a safety cable.

**Connect the fixture only to a grounded (earthed) power supply with overload protection** for protection against electric shock. Verify that power cables and connectors are in good condition. Replace a blown fuse with one of the specified rating only.

### 1.2 **CAUTION! Hazards that Could Result in Moderate Injury**

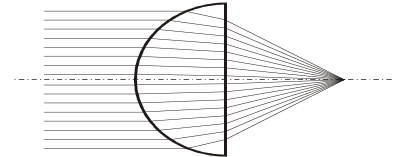
Avoid using strobe effects for extended periods. Flashing light, particularly between 5 and 30 flashes per second, may cause seizures in persons with photosensitive epilepsy. Check local regulations on use of strobe lighting and notify the public in advance when strobe effects are used. If a seizure occurs,

stop using strobe effects. Help the person sit in a safe place or lay them on their side with their head supported to prevent it from hitting the floor. Do not use force. Seek emergency medical help if the seizure lasts for more than a few minutes.

**Do not operate a fixture with damaged, cracked, or missing pieces.** All optical components and covers must be in good condition.

### 1.3 **NOTICE! Prevent Damage to Product or other Property**

**Avoid pointing the front of the fixture towards direct sunlight or other strong light sources.** The front lens focuses and concentrates light just like a magnifying glass. Direct sunlight and other bright light sources can cause internal damage to the fixture, melting components or starting an internal fire within seconds.



Damage can occur whether the fixture is powered on or off. To avoid problems:

- Never 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 shielded or points away from the sun, even when not in use.
- Avoid pointing other high-powered beam lights directly at the fixture.

**Ensure that the head can rotate through its full tilt range** before powering up the fixture, and that fans and air vents are clean and unobstructed.

**Use only original spare parts.** Any structural modification on the system will terminate all warranty claims.

## 2 Overview of Features

### 2.1 Intended Use

The JDC1 is for permanent or temporary indoor use. It may be used outdoors if it is protected from moisture and precautions are taken to prevent damage from direct sunlight. It may be placed upright on a level surface or suspended from a suitable structure as described in Section 3.2.

It is not suitable for household use, wherever unattended children have access to it, or for permanent outdoor installation.

The JDC1 shall be installed, operated, and maintained only by persons with the training, knowledge and skills to do safely and efficiently.

### 2.2 Parts Identification

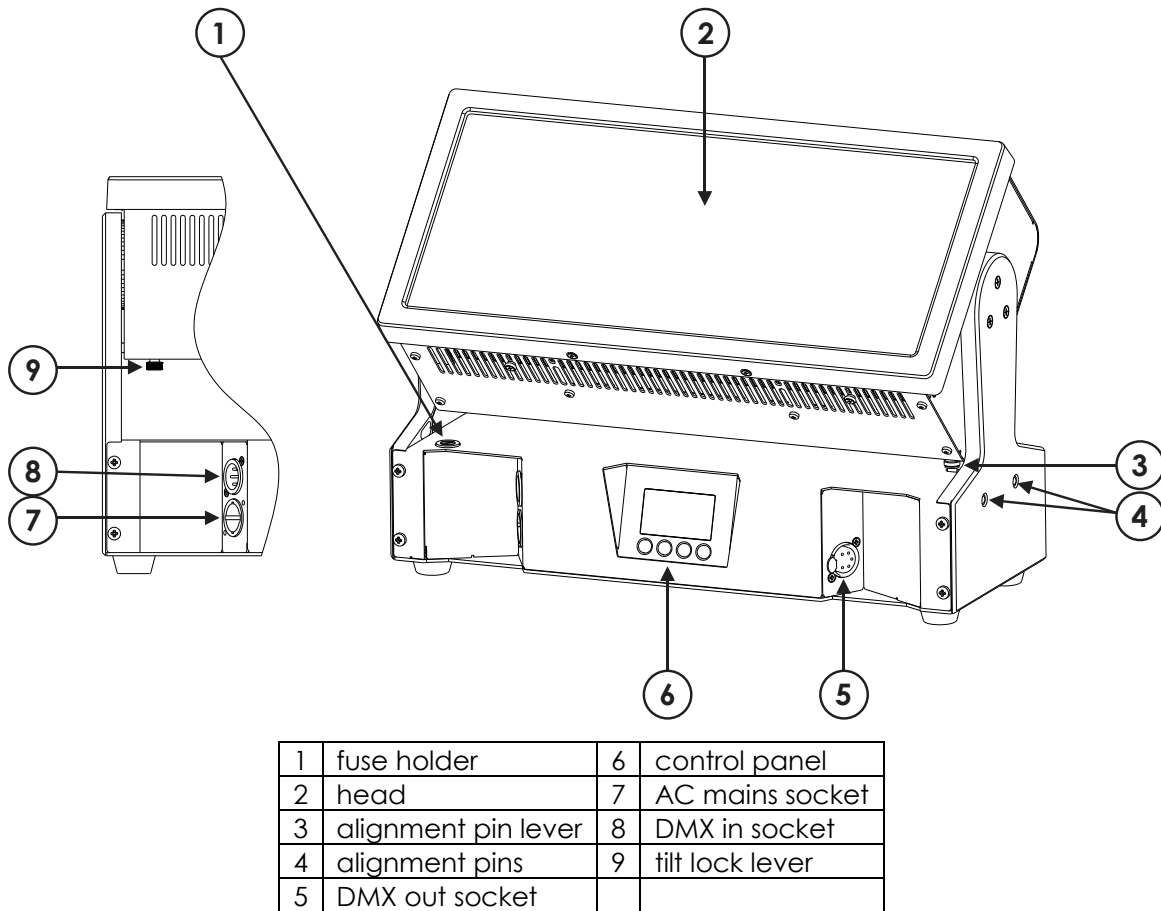


Figure 2-1

### 2.3 Strobe

The JDC1 provides a traditional single-tube element created with 216 LEDs that produce an incredibly clear, bright white output. The LEDs flash at up to 16.67 Hz and can be run continuously for high output blinder and wash effects with an 86° beam angle. Control of the tube is divided into 12 'pixel' segments.

## **2.4 Color**

The JDC1 provides two large-array RGB color plates surrounding the strobe tube. Each plate is divided into six independently controllable 110 LED 'pixels' that flash and operate continuously, providing a wide (148°) color wash.

## **2.5 Dimming and Shutter Effects**

Three dimming curves are available: linear, soft, and extra soft. Select the desired mode from the control panel.

## **2.6 Tilt**

The JDC1 head tilts through 185° with coarse and fine control channels and self-correcting position feedback. Position feedback can be disabled and control can be reversed from the control panel.

## **2.7 Changing Settings by DMX**

The Control Channel (7 in Normal DMX Mode) provides the ability to adjust the pulse width modulation (PWM) frequency in 1 Hz increments from 582 to 618 Hz, or set to 1200 or 2400 Hz. It also provides commands to toggle FX/Pattern Color Priority on/off, and perform a fixture reset.

## **2.8 Display**

The illuminated graphic LCD display with self-charging battery allows you to change fixture settings quickly and intuitively under any conditions, even when the power is off. See Chapter 4 for settings, readouts, and related information.

## **2.9 Clamp Attachment**

The base provides Camlock attachment points for easy fastening of an omega clamp attachment bracket that accepts two half-coupler clamps.

### 3 Preparation for Use



Installation shall be performed by qualified personnel only, in accordance with applicable regulations such as BGV C1 and DIN VDE 0711-217.

#### 3.1 Included Items

The JDC1 package includes a power cord with Neutrik powerCON TRUE1 connector and an omega bracket (part no. 87036).

#### 3.2 Mounting

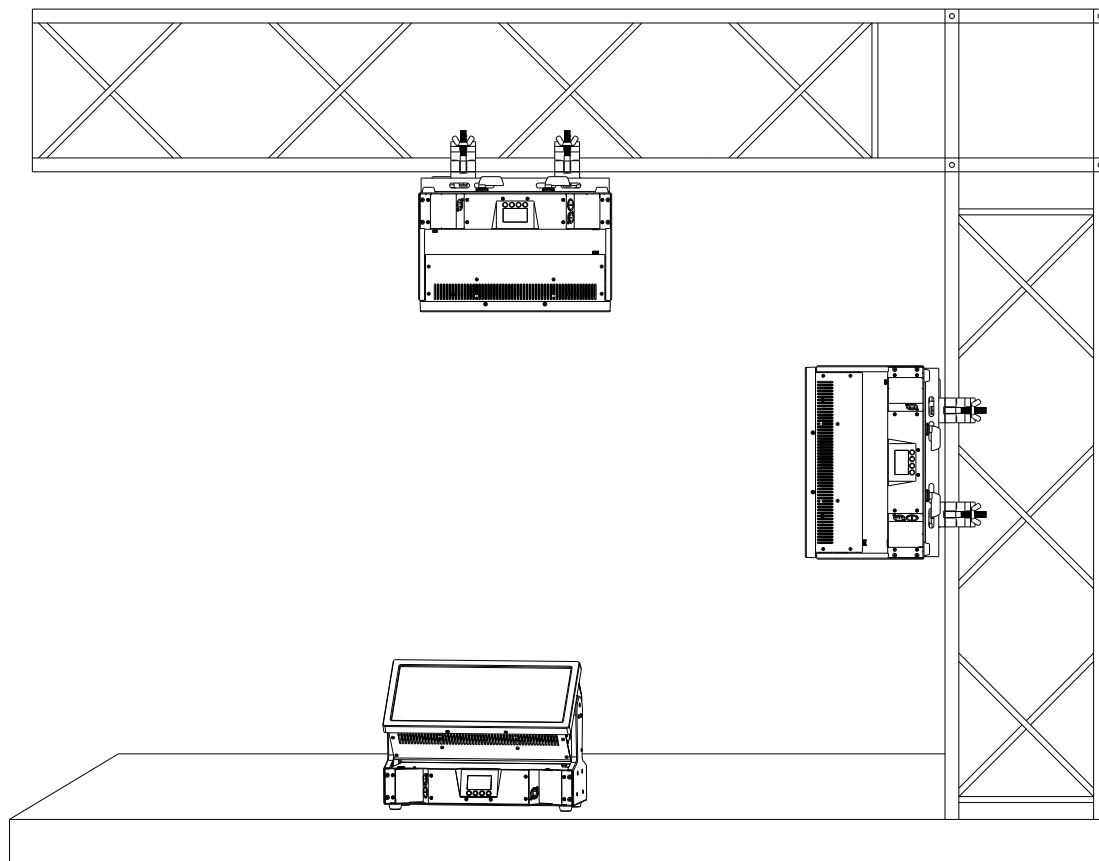


Figure 3-1: Mounting Options (safety cable not shown)

The JDC1 may be rigged in any orientation or placed on a level surface. When installing, keep the head at least 1 m (3.3 ft.) from flammable materials including curtains and stage scenery.

An omega bracket for attaching two half-couplers is included.



### Mounting Upright on a Level Surface

The JDC1 may be placed upright on a level surface. Precautions shall be taken to avoid accidental contact.

- 3.2.1 To align multiple units, insert the alignment pins on the right side of one fixture into the alignment holes on the left side of the next fixture.

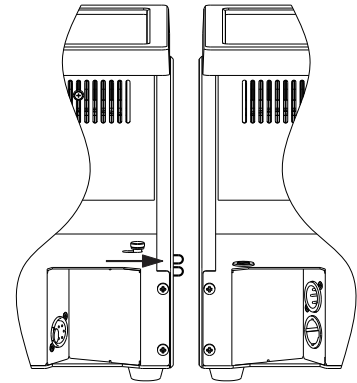


Figure 3-2: Alignment

### Head Down or Sideways Truss Mounting

- 3.2.2 To hang the JDC1 with the head down or sideways, bolt two suitable half-coupler rigging clamps to the omega clamp attachment bracket. Fasten the bracket to the base with four Camlock quarter-turn pins. Line up and insert the pins into the base and turn 90° clockwise to lock. Do the opposite to release them.

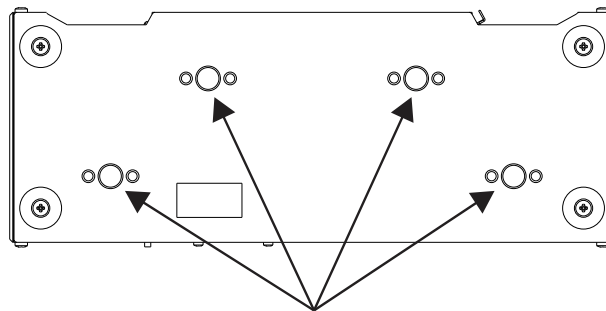


Figure 3-3: Camlock Sockets

Fasten the rigging clamps securely to the truss. Secure as directed in section 3.3.

### 3.3 Securing the Device

**Warning! Use a secondary attachment (safety wire) that can hold at least 10 times the weight of the fixture whenever hanging the fixture.** Clip the safety wire to the cable eye on the back of base.

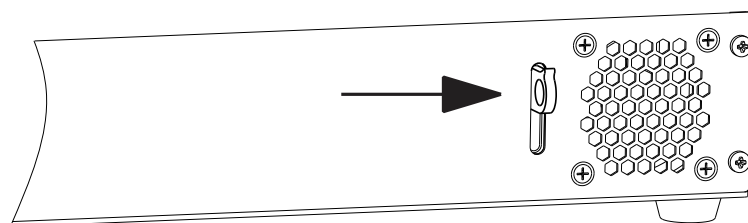


Figure 3-4: Safety Cable Attachment Point

### 3.4 Connections

#### Power



3.4.1

The AC supply shall provide earth ground connection and overload protection. Before applying power, verify that there is adequate clearance around the fixture, that there is no filter or other object on the front glass, and that the head is unlocked and can move freely.

The JDC1 provides a 3-conductor, 20 A Neutrik powerCON TRUE1 socket for connection to AC power. The autosensing power supply accepts 100-240 V, 50/60 Hz AC power. Do not connect to any other voltage or an external dimmer.

The main fuse is located in a holder in the base. **WARNING! Always disconnect the fixture from the mains supply before replacing the fuse. Replace only with fuse of the specified type.**

#### Control Data

3.4.2

The JDC1 provides 5-pin XLR input/output sockets for connection to a USITT DMX-512 Standard data link. The pin connections are Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+]. Pins 4 & 5 on the 5-pin sockets have no contact.

### 3.5 Start/stop operation

Verify that the tilt lock has been released before operating. Apply power to start operation. Disconnect from power to stop operation.

### 3.6 Transportation and Storage

The JDC1 should be transported either in a flight case or its original packaging to protect it from damage from shocks during transportation. Lock the head in the horizontal position for transport by sliding the tilt lock lever to the locked position.

When not installed, store the fixture in a dry location.

## 4 The Menu Field

The LCD display provides access to user settings, readouts, and utilities including manual control and a test routine.

From left to right, the top line of the main menu displays:

- main CPU software version
- DMX control modes for tilt, all pixels, color plate 2: N(ormal) or I(nverted)
- DMX mode number
- dimming mode: L(inear), S(oft), or E(xtra Soft)
- PWM frequency in Hz

For example, if the top line reads “V:1.25/NNN/M02/E 600”, then:

- the main CPU software is version 1.25,
- DMX control for tilt, all pixels, and color plate 2 is set to normal,
- DMX mode 2 is selected,
- dimming mode is set to extra soft, and
- PWM frequency is set to 600 Hz.

When booting up, the panel displays fixture information including component firmware and hardware versions and fixture hours before displaying the PCB reset status screen. After resetting, the panel displays the main menu.

The bottom row displays button functions. Press the Mode button to escape and return to the top of the menu. Press the Enter button to select a setting, issue a command, or enter a submenu. Press the Down and Up buttons to scroll menu options.

To return resettable counters to zero, press and hold Enter for 3 seconds with the counter displayed.

DMX control is disabled when the menu is active. A flashing display indicates loss of DMX.

Menu Selection		Value	Remarks
DMX Start Address		1-512	Set the DMX start address
Setup			
DMX Mode			
M01 COMPRESS		-	Compressed 14-channel mode
<b>M02 NORMAL</b>		-	Normal 23-channel mode
M03 SPIX		-	High resolution 68-channel mode
M04 SPIXPRO		-	High resolution 62-channel mode
M05 1PIXPRO		-	Low resolution 17-channel mode
Settings			
Tilt			
Invert Tilt		ON/OFF	Invert tilt control
Position Feedback		ON/OFF	Toggle feedback
Tilt Enable			
<b>ON</b>		-	Tilt enabled and DMX controllable
OFF		-	Tilt disabled
NC		-	Tilt enabled, not DMX controllable
Shutter			
Error Blackout		ON/OFF	Blackout in case of error
No DMX Blackout		ON/OFF	Blackout if no DMX for 3 seconds
Init Positions			
Save		-	Save as initial positions
Reset		-	Restore default positions
Dimming Curve			
Linear		-	
Soft		-	
<b>Extra Soft</b>		-	
DMX Hold			
Off		-	Blackout on loss of DMX
Fade Out		-	Fade out on loss of DMX
<b>Hold</b>		-	Hold state on loss of DMX
PWM Frequency			Adjust pulse width modulation freq.
582-618 Hz		-	Default = 600 Hz
1200 Hz		-	
2400 Hz		-	
FX Pattern Priority		ON/OFF	
Display			
Contrast		0-100%	Default = 50%
Brightness		0-100%	Default = 100%
Blackout Time		1-30 s	Display off (seconds after keypress)
Display Orientation			
<b>Normal</b>		-	Normal display
Inverted		-	Inverted display
No DMX Flash		ON/OFF	Toggle flash on DMX loss
Temperature Unit		°C/°F	
Fan Mode			
<b>Auto</b>		-	Temperature controlled fan speed
High		-	Maximum cooling
Reset Factory Settings		Yes/No	Resets all values except serial number

Information			
	System Errors	List	Display recent errors
	System Versions		Display firmware and hardware versions
	Main	SW/HW	
	Tilt	SW/HW	
	NM-LED A	SW/HW	
	NM-LED B	SW/HW	
	NM-LED C	SW/HW	
	NM-LED D	SW/HW	
	Temperatures		
	Main Temperature		
	Current	°C/°F	
	Max. Resettable	°C/°F	Maximum temperature since last reset
	Max. Non-resettable	°C/°F	All time maximum temperature
	LED Temperature		
	Current	°C/°F	
	Max. Resettable	°C/°F	Maximum temperature since last reset
	Max. Non-resettable	°C/°F	All time maximum temperature
	Fixture Information		
	Fixture Hours		
	Total hours	hours	Total hours
	Resettable hours	hours	Hours since last reset
	Boot Count	count	
	Fixture Status		
	Power State	BAT/PO	Battery or AC mains power
	DMX Input Monitor		Displays DMX levels
	Tilt	0-255	
	Special / Control	0-255	
	Beam FX Shutter	0-255	
	Beam Dimmer	0-255	
	Beam Duration	0-255	
	Beam Rate	0-255	
	Color Shutter	0-255	
	FX Color Dimmer	0-255	
	Color Duration	0-255	
	Color Rate	0-255	
	Plate Red	0-255	
	Plate Green	0-255	
	Plate Blue	0-255	
	FX Crossfade	0-255	
	Pattern Color Movement	0-255	
	Pattern Select Color	0-255	
	Pattern Beam Movement	0-255	
	Pattern Select Beam	0-255	
	Master Pix Intensity	0-255	
	Fans Monitor		Display fan speed and voltage
	PSU Fan	RPM/V	
	Head Fan	RPM/V	

Manual Control			
	Reset		
	Full System Reset	YES/NO	
	Tilt Reset	YES/NO	
	NM_LED L Driver	YES/NO	
	NM_LED R Driver	YES/NO	
	Manual DMX		Enter control values
	Tilt	<b>0-255</b>	
	Special / Control	<b>0-255</b>	
	Beam FX Shutter	<b>0-255</b>	
	Beam Dimmer	<b>0-255</b>	
	Beam Duration	<b>0-255</b>	
	Beam Rate	<b>0-255</b>	
	Color Shutter	<b>0-255</b>	
	Color Dimmer	<b>0-255</b>	
	Color Duration	<b>0-255</b>	
	Color Rate	<b>0-255</b>	
	FX Color Dimmer	<b>0-255</b>	
	Plate Red	<b>0-255</b>	
	Plate Green	<b>0-255</b>	
	Plate Blue	<b>0-255</b>	
	FX Crossfade	<b>0-255</b>	
	Pattern Color Movement	<b>0-255</b>	
	Pattern Select Color	<b>0-255</b>	
	Pattern Beam Movement	<b>0-255</b>	
	Pattern Select Beam	<b>0-255</b>	
	Master Pix Intensity	<b>0-255</b>	
	Reset All Values	YES/NO	Set all manual DMX values to 0
Test			
	Tilt	<b>ON/OFF</b>	
	Color	<b>ON/OFF</b>	
	All	<b>ON/OFF</b>	
Service			
	Key Code	<b>0-255</b>	Enter code for Service Menu.
	Serial	0-99999	Last 5 digits of serial no. (for RDM)
	Tilt	0-255	Default =128

Table 1 Control Menu: Default settings in **BOLD type**.

## 5 DMX Channels

The JDC1 may be operated in 5 DMX modes that use from 14 to 68 channels. The commands for each mode are listed in the following tables.

The layout of channels 1-14 is the same in each mode. To avoid repetition, these channels are only listed in the table for Mode 1. For modes 2-5, the tables list channels 15 and above.

## 5.1 Mode 1, Compressed Pro, 14 DMX Channels

Channel	Command	Percent	DMX	
1	<b>Coarse Tilt (MSB)</b>	0-185°	0-255	
2	<b>Fine Tilt (LSB)</b>	coarse tilt + 0-1.2°	0-255	
3	<b>Beam Intensity</b>	blackout to full	0-255	
4	<b>Beam Duration</b>	7-650 ms	0-255	
5	<b>Beam Rate</b>	0.289-16.67 Hz	0-255	
6	<b>Beam FX Shutter</b>	no effect	0-14.0%	0-36
		ramp up (= fade on, snap off)	14.5-15.5%	37-40
		ramp up random	16.0-17.0%	41-44
		ramp down	17.5-18.5%	45-48
		ramp down random	19.0-20.0%	49-52
		ramp up down	20.5-21.5%	53-56
		ramp up down random	22.0-23.0%	57-60
		random white beam	23.5-24.5%	61-64
		random single pixel of the white beam	25.0-26.0%	65-68
		lightning	26.5-27.5%	69-72
		spikes (flash over low light)	28.0-29.0%	73-76
		white beam, left to right	30.0-31.5%	77-80
		white beam, left to right, random	32.0-33.0%	81-84
		white beam, right to left	33.5-34.5%	85-88
		white beam, right to left, random	35.0-36.0%	89-92
		white beam, left to right, bounce	36.5-37.5%	93-96
		white beam, left to right, bounce, random	38.0-39.0%	97-100
		white beam, right to left, bounce	39.5-40.5%	101-104
		white beam, right to left, bounce, random	41.0-42.5%	105-108
		zig, 6 steps	43.0-43.5%	109-112
		zig, 6 steps, random	44.0-45.5%	113-116
		zig, 6 steps, outer to center pixel	46.0-47.0%	117-120
		zig, 6 steps, outer to center pixel, random	47.5-48.5%	121-124
		zigzag, 10 steps	49.0-50.0%	125-128
		zigzag, 10 steps, random	50.5-52.0%	129-132
		reserved	52.5-70.0%	133-179
		double flash	70.6-71.8%	180-183
		double flash, random	72.2-73.3%	184-187
		double flash, beam-color	73.7-74.9%	188-191
		double flash, beam-color, random	75.3-76.5%	192-195
		double flash, color-beam	76.9-78.0%	196-199
		double flash, color-beam, random	78.4-79.6%	200-203
		triple flash	80.0-81.2%	204-207
triple flash, random	81.6-82.7%	208-211		
triple flash, beam-color-beam	83.1-84.3%	212-215		
triple flash, b-c-b, random	84.7-85.9%	216-219		
triple flash, c-b-c	86.3-87.5%	220-223		
triple flash, c-b-c, random	87.8-89.0%	224-227		
quad flsh	89.4-90.6%	228-231		
quad flash, random	91.0-92.2%	232-235		
quad flash, b-c-b-c	92.5-93.7%	236-239		
quad flash, b-c-b-c, random	94.1-95.3%	240-243		
quad flash, c-b-c-b	95.7-96.9%	244-247		
quad flash, c-b-c-b, random	97.3-98.4%	248-251		
reserved	98.5-100%	252-255		



<b>7 Special / Control</b>	No Function	0%	0	
	Channel 4-6 Offset	10°	0.4%	1
		20°	0.8%	2
		30°	1.2%	3
		40°	1.6%	4
		50°	2.0%	5
		60°	2.4%	6
		70°	2.8%	7
		80°	3.1%	8
		90°	3.5%	9
		100°	3.9%	10
		110°	4.3%	11
		120°	4.7%	12
		130°	5.1%	13
		140°	5.5%	14
		150°	5.9%	15
		160°	6.3%	16
		170°	6.7%	17
		180°	7.1%	18
		190°	7.5%	19
		200°	7.8%	20
		210°	8.2%	21
		220°	8.6%	22
		230°	9.0%	23
		240°	9.4%	24
		250°	9.8%	25
		260°	10.2%	26
		270°	10.6%	27
		280°	11.0%	28
		290°	11.4%	29
		300°	11.8%	30
		310°	12.2%	31
		320°	12.6%	32
		330°	12.9%	33
		340°	13.3%	34
		350°	13.7%	35
		360°	14.1%	36
No Function	14.5-15.3%	37-39		
Position Feedback On	15.7-17.3%	40-44		
Position Feedback Off	17.7-19.2%	45-49		
FX/Pattern Color Priority On (Hold > 3 secs)	19.6-21.2%	50-54		
FX/Pattern Color Priority Off (Hold > 3 secs)	21.6-23.1%	55-59		
Pixel H	23.5-25.1%	60-64		
Pixel V	25.5-27.1%	65-69		
Normal Tilt Control	27.5-29.0%	70-74		
Inverse Tilt Control	29.4-31.0%	75-79		
Normal Pixel Orientation	31.4-32.9%	80-84		
Inverse Pixel Orientation	33.3-34.9%	85-89		
Normal Orientation, 2 <sup>nd</sup> Pixel Line	35.3-36.9%	90-94		
Inverse Orientation, 2 <sup>nd</sup> Pixel Line	37.3-38.8%	95-99		

7	Special / Control	PWM Frequency	582 Hz	39.2-40.0%	100-102		
			583 Hz	40.4-41.2%	103-105		
			584 Hz	41.6-42.0%	106-107		
			585 Hz	42.4-43.1%	108-110		
			586 Hz	43.5-43.9%	111-112		
			587 Hz	44.3-45.1%	113-115		
			588 Hz	45.5-46.3%	116-118		
			589 Hz	46.7-47.1%	119-120		
			590 Hz	47.5-48.2%	121-123		
			591 Hz	48.6-49.0%	124-125		
			592 Hz	49.4-50.2%	126-128		
			593 Hz	50.6-51.4%	129-131		
			594 Hz	51.8-52.2%	132-133		
			595 Hz	52.5-53.3%	134-136		
			596 Hz	53.7-54.1%	137-138		
			597 Hz	54.5-55.3%	139-141		
			598 Hz	55.7-56.5%	142-144		
			599 Hz	56.9-57.3%	145-146		
			600 Hz	57.6-58.4%	147-149		
			601 Hz	58.8-59.2%	150-151		
			602 Hz	59.6-60.4%	152-154		
			603 Hz	60.8-61.6%	155-157		
			604 Hz	62.0-62.4%	158-159		
			605 Hz	62.7-63.5%	160-162		
			606 Hz	63.9-64.3%	163-164		
			607 Hz	64.7-65.5%	165-167		
			608 Hz	65.9-66.7%	168-170		
			609 Hz	67.1-67.5%	171-172		
			610 Hz	67.8-68.6%	173-175		
			611 Hz	69.0-69.4%	176-177		
			612 Hz	69.8-70.6%	178-180		
			613 Hz	71.0-71.8%	181-183		
			614 Hz	72.2-72.5%	184-185		
			615 Hz	72.9-73.7%	186-188		
			616 Hz	74.1-74.5%	189-190		
			617 Hz	74.9-75.7%	191-194		
			618 Hz	76.1-76.1%	194-194		
			1200 Hz	76.5-77.3%	195-197		
			2400 Hz	77.6-78.4%	198-200		
			No Function			79.0-82.0%	201-209
			Duration Percentage Mode On			82.5-84.0%	210-214
			Duration Percentage Mode Off			84.5-85.0%	215-219
Dimmer Flash On			86.0-87.5%	220-224			
Dimmer Flash Off			88.0-90.0%	225-229			
FX/Plate Color Priority On			90.5-91.5%	230-234			
FX/Plate Color Priority Off			92.0-93.5%	235-239			
No Function			94.0-97.0%	220-247			
Reset (Hold > 5 seconds)			98.0-100%	248-255			

<b>8</b>	<b>Color Plate Intensity</b>	blackout to full	0-100%	0-255	
<b>9</b>	<b>Color Flash Duration</b>	7-650 ms	0-100%	0-255	
<b>10</b>	<b>Color Flash Rate</b>	0.289-16.67 Hz	0-100%	0-255	
<b>11</b>	<b>Color FX Shutter</b>	No function	0%	0	
		Color Plate Offset	10°	0.4%	1
			20°	0.8%	2
			30°	1.2%	3
			40°	1.6%	4
			50°	2.0%	5
			60°	2.4%	6
			70°	2.8%	7
			80°	3.1%	8
			90°	3.5%	9
			100°	3.9%	10
			110°	4.3%	11
			120°	4.7%	12
			130°	5.1%	13
			140°	5.5%	14
			150°	5.9%	15
			160°	6.3%	16
			170°	6.7%	17
			180°	7.1%	18
			190°	7.5%	19
			200°	7.8%	20
			210°	8.2%	21
			220°	8.6%	22
			230°	9.0%	23
			240°	9.4%	24
			250°	9.8%	25
			260°	10.2%	26
			270°	10.6%	27
			280°	11.0%	28
			290°	11.4%	29
			300°	11.8%	30
			310°	12.2%	31
			320°	12.6%	32
			330°	12.9%	33
			340°	13.3%	34
			350°	13.7%	35
360°	14.1%	36			
	ramp up (fade on, snap off)	14.5-15.5%	37-40		
	ramp up, random	16.0-17.0%	41-44		
	ramp down	17.5-18.5%	45-48		
	ramp down, random	19.0-20.0%	49-52		
	ramp up / down	20.5-21.5%	53-56		
	ramp up / down, random	22.0-23.0%	57-60		
	random white beam	23.5-24.5%	61-64		
	random single pixel of the white beam	25.0-26.0%	65-68		
	lightning	26.5-27.5%	69-72		
	spikes (flash over low light)	28.0-29.0%	73-76		
	reserved	29.5-70.0%	77-179		
	double flash	70.6-74.9%	180-191		

11	Color FX Shutter	double flash, random	75.3-79.6%	192-203
		triple flash	80.0-84.3%	204-215
		triple flash, random	84.7-89.0%	216-227
		quad flash	89.4-93.7%	228-239
		quad flash, random	94.1-98.4%	240-251
		no effect	98.5-100%	252-255
12	Plate Red Intensity	blackout to full	0-100%	0-255
13	Plate Green Intensity	blackout to full	0-100%	0-255
14	Plate Blue Intensity	blackout to full	0-100%	0-255

## 5.2 Mode 5, 1Pix Pro, 17 DMX Channels

Channel	Command	Percent	DMX
See Mode 1 for Channels 1-14			
15	Color Set 2, Red intensity	0-100%	0-255
16	Color Set 2, Green intensity	0-100%	0-255
17	Color Set 2, Blue intensity	0-100%	0-255

## 5.3 Mode 2, Normal, 23 DMX Channels

Channel	Command	Percent	DMX
See Mode 1 for Channels 1-14			
15	FX Crossfade	0-100%	0-255
16	Pattern Color Movement	0-100%	0-255
17	Pattern Select Color	0-100%	0-255
18	Pattern Beam Movement	0-100%	0-255
19	Pattern Select Beam	0-100%	0-255
20	Color Set 2, Master Intensity	blackout to full	0-100%
21	Color Set 2, Red intensity	blackout to full	0-100%
22	Color Set 2, Green intensity	blackout to full	0-100%
23	Color Set 2, Blue intensity	blackout to full	0-100%

## 5.4 Mode 4, SPix Pro, 62 DMX Channels

Channel		Command	Percent	DMX
<b>See Mode 1 for Channels 1-14</b>				
15	Pixel 1	Red	0-100%	0-255
16		Green	0-100%	0-255
17		Blue	0-100%	0-255
18	Pixel 2	Red	0-100%	0-255
19		Green	0-100%	0-255
20		Blue	0-100%	0-255
21	Pixel 3	Red	0-100%	0-255
22		Green	0-100%	0-255
23		Blue	0-100%	0-255
24	Pixel 4	Red	0-100%	0-255
25		Green	0-100%	0-255
26		Blue	0-100%	0-255
27	Pixel 5	Red	0-100%	0-255
28		Green	0-100%	0-255
29		Blue	0-100%	0-255
30	Pixel 6	Red	0-100%	0-255
31		Green	0-100%	0-255
32		Blue	0-100%	0-255
33	Pixel 7	Red	0-100%	0-255
34		Green	0-100%	0-255
35		Blue	0-100%	0-255
36	Pixel 8	Red	0-100%	0-255
37		Green	0-100%	0-255
38		Blue	0-100%	0-255
39	Pixel 9	Red	0-100%	0-255
40		Green	0-100%	0-255
41		Blue	0-100%	0-255
42	Pixel 10	Red	0-100%	0-255
43		Green	0-100%	0-255
44		Blue	0-100%	0-255
45	Pixel 11	Red	0-100%	0-255
46		Green	0-100%	0-255
47		Blue	0-100%	0-255
48	Pixel 12	Red	0-100%	0-255
49		Green	0-100%	0-255
50		Blue	0-100%	0-255
51	White Intensity	Pixel 1	0-100%	0-255
52		Pixel 2	0-100%	0-255
53		Pixel 3	0-100%	0-255
54		Pixel 4	0-100%	0-255
55		Pixel 5	0-100%	0-255
56		Pixel 6	0-100%	0-255
57		Pixel 7	0-100%	0-255
58		Pixel 8	0-100%	0-255
59		Pixel 9	0-100%	0-255
60		Pixel 10	0-100%	0-255
61		Pixel 11	0-100%	0-255
62		Pixel 12	0-100%	0-255

## 5.5 Mode 3, SPix, 68 DMX Channels

Channel		Command	Percent	DMX
<b>See Mode 1 for Channels 1-14</b>				
15	FX Crossfade		0-100%	0-255
16	Pattern Color Movement		0-100%	0-255
17	Pattern Select Color		0-100%	0-255
18	Pattern Beam Movement		0-100%	0-255
19	Pattern Select Beam		0-100%	0-255
20	Master Pix Intensity		0-100%	0-255
21	Pixel 1	Red	0-100%	0-255
22		Green	0-100%	0-255
23		Blue	0-100%	0-255
24	Pixel 2	Red	0-100%	0-255
25		Green	0-100%	0-255
26		Blue	0-100%	0-255
27	Pixel 3	Red	0-100%	0-255
28		Green	0-100%	0-255
29		Blue	0-100%	0-255
30	Pixel 4	Red	0-100%	0-255
31		Green	0-100%	0-255
32		Blue	0-100%	0-255
33	Pixel 5	Red	0-100%	0-255
34		Green	0-100%	0-255
35		Blue	0-100%	0-255
36	Pixel 6	Red	0-100%	0-255
37		Green	0-100%	0-255
38		Blue	0-100%	0-255
39	Pixel 7	Red	0-100%	0-255
40		Green	0-100%	0-255
41		Blue	0-100%	0-255
42	Pixel 8	Red	0-100%	0-255
43		Green	0-100%	0-255
44		Blue	0-100%	0-255
45	Pixel 9	Red	0-100%	0-255
46		Green	0-100%	0-255
47		Blue	0-100%	0-255
48	Pixel 10	Red	0-100%	0-255
49		Green	0-100%	0-255
50		Blue	0-100%	0-255
51	Pixel 11	Red	0-100%	0-255
52		Green	0-100%	0-255
53		Blue	0-100%	0-255
54	Pixel 12	Red	0-100%	0-255
55		Green	0-100%	0-255
56		Blue	0-100%	0-255
57	White Intensity	Pixel 1	0-100%	0-255
58		Pixel 2	0-100%	0-255
59		Pixel 3	0-100%	0-255
60		Pixel 4	0-100%	0-255
61		Pixel 5	0-100%	0-255
62		Pixel 6	0-100%	0-255
63		Pixel 7	0-100%	0-255
64		Pixel 8	0-100%	0-255
65		Pixel 9	0-100%	0-255
66		Pixel 10	0-100%	0-255
67		Pixel 11	0-100%	0-255
68		Pixel 12	0-100%	0-255

## 6 Cleaning and Maintenance



**WARNING!** Any service operation that requires removal of a cover shall be performed by a professional service technician with the tools, skills, and personal protective equipment to maintain high-powered lighting equipment safely and efficiently.

### 6.1 Suggested Maintenance Intervals

The cleaning schedule depends on the operating environment. The intervals below are suggestions from our experience with typical installations. Adjust as necessary.

Maintenance Task	Interval	How
Front glass	weekly	soft cloth and glass cleaning fluid
Fans and air channel	monthly	vacuum cleaner, compressed air, etc.
Moveable parts	yearly	suitable lubricant

### 6.2 Cleaning

JDC1 components require occasional cleaning to prevent the buildup of dust, dirt, and smoke fluid residue. Pay special attention to the air vents and glass plate. Failure to keep the fixture clean will significantly reduce light output and may cause damage. Regular cleaning will ensure the maximum performance and reliable operation.

The glass plate may be cleaned with household or automotive glass cleaning products.

### 6.3 GLP Service and Support

Contact information for the nearest GLP service and support is available online at [www.glp.de/en/service](http://www.glp.de/en/service), by email at [info@glp.de](mailto:info@glp.de), or by telephone at the following numbers:

- GLP Germany: +49 (7248) 927 19-55
- GLP N. America: +1 818 767-8899
- GLP U.K.: +44 1392 690140
- GLP Asia: +852 (3151) 7730
- GLP Nordic: +46 737 57 11 40

## 7 Technical Specifications

### Strobe Panel LEDs

LED Type	OSRAM LRTB GVTG
LED Count	1320
LED Colors	RGB
LED Segments	12 (2 x 6)

### Strobe Tube LEDs

LED Type	CREE XP L LED
LED Count	216
LED Colors	Cool White
LED Segments	12

### Movement

Resolution	8 - 16 Bit
Position feedback	yes
Tilt	185 °

### Connectors

Signal connection	XLR 5-pin input & output
Power input	Neutrik powerCON TRUE1

### Operating Conditions

Mains voltage	100-240 VAC / 50-60Hz
Power (@ 230V)	1200 W
Fuse	6.3X32mm T15A
Max. ambient temp.	45°C / 113°F
Operating position	any

### Shipping

Single fixture	cardboard (Product code 7675)
Tourpacks	4-way & 8-way incl. flightcase

### Dimensions & Weight

Length	154 mm (6.1 in)
Width	390 mm (15.3 in)
Height (head horizontall)	284 mm (11.2 in)
Weight	10.8 kg (24 lbs)
Weight incl. bracket	12 kg (26.5 lbs)



## 8 Dimensions

