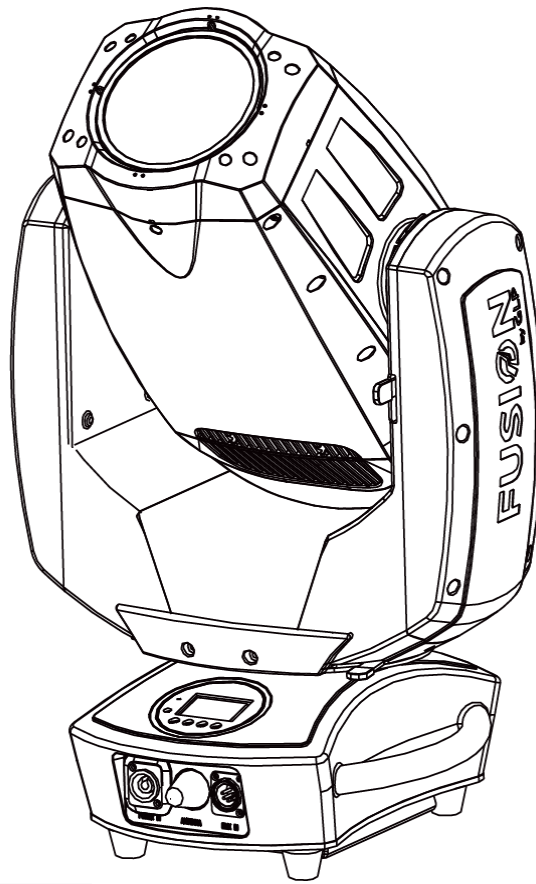


FUSION

by GLP

Fusion EXO Spot 30

DMX Channel Index



Software version v.1.0.00

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GLP® Fusion EXO Spot 30 DMX Channel Index – Revision 20231101-01

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1. DMX control overview

The EXO Spot 30 has only one DMX control mode and uses the following DMX channels.

The EXO Spot 30 uses 23 DMX channels.

It provides 16-bit control of pan and tilt, 16-bit dimming and a shutter with strobe and ramp up/down effects. Control of the three color wheels, two gobo wheels, gobo rotation, zoom and the prism is provided.

You also have control of focus and a control / settings channel that lets you configure the feature and adjust settings remotely via DMX.

DMX control overview

1	Pan
2	Pan fine
3	Tilt
4	Tilt fine
5	Color wheel 1 Cyan
6	Color wheel 2 Magenta
7	Color wheel 3 Yellow
8	Cyan
9	Magenta
10	Yellow
11	Gobo 1
12	Gobo 2
13	Gobo 2 index/rotate
14	Shutter
15	Dimmer coarse
16	Dimmer fine
17	Frost
18	Prism
19	Prism rotation
20	Focus coarse
21	Focus fine
22	Zoom
23	Control

2. DMX control channel layout

23 DMX Channels

Channel	Command	DMX range		Percent		Default DMX	Fade	
1	Pan	Pan left-right	0	65535	0	100	32767	Fade
2	Pan fine							
3	Tilt	Tilt up-down	0	65535	0	100	32767	Fade
4	Tilt fine							
5	Color 1 (Cyan)	Position 1 (Open)	0	3	0.0	1.2	0	Snap
		Position 1 + 2 (Split Color)	4	7	1.6	2.7		
		Position 2	8	11	3.1	4.3		
		Position 2 + 3 (Split Color)	12	15	4.7	5.9		
		Position 3	16	19	6.3	7.5		
		Position 3 + 4 (Split Color)	20	23	7.8	9.0		
		Position 4	24	27	9.4	10.6		
		Position 4 + 5 (Split Color)	28	31	11.0	12.2		
		Position 5	32	35	12.5	13.7		
		Indexing from Open over fixed Colors to Cyan (full)	36	169	14.1	66.3		
		Color Bounce from Open over fixed Colors to Cyan (full) and back, Fast-Slow	170	214	66.7	83.9		
		Color Bounce Stop	215	215	84.3	84.3		
		Invert Color Bounce from Cyan (Full) over fixed Colors to Open and back, Slow-Fast	216	255	84.7	100.0		
6	Color 2 (Magenta)	Position 1 (Open)	0	3	0.0	1.2	0	Snap
		Position 1 + 2 (Split Color)	4	7	1.6	2.7		
		Position 2	8	11	3.1	4.3		
		Position 2 + 3 (Split Color)	12	15	4.7	5.9		
		Position 3	16	19	6.3	7.5		
		Position 3 + 4 (Split Color)	20	23	7.8	9.0		
		Position 4	24	27	9.4	10.6		
		Position 4 + 5 (Split Color)	28	31	11.0	12.2		
		Position 5	32	35	12.5	13.7		
		Indexing from Open over fixed Colors to Magenta (full)	36	169	14.1	66.3		
		Color Bounce from Open over fixed Colors to Magenta (full) and back, Fast-Slow	170	214	66.7	83.9		
		Color Bounce Stop	215	215	84.3	84.3		
		Invert Color Bounce from Magenta (Full) over fixed Colors to Open and back, Slow-Fast	216	255	84.7	100.0		
7	Color 3 (Yellow)	Position 1 (Open)	0	3	0.0	1.2	0	Snap
		Position 1 + 2 (Split Color)	4	7	1.6	2.7		
		Position 2	8	11	3.1	4.3		
		Position 2 + 3 (Split Color)	12	15	4.7	5.9		
		Position 3	16	19	6.3	7.5		
		Position 3 + 4 (Split Color)	20	23	7.8	9.0		
		Position 4	24	27	9.4	10.6		
		Position 4 + 5 (Split Color)	28	31	11.0	12.2		
		Position 5	32	35	12.5	13.7		
		Indexing from Open over fixed Colors to Yellow (full)	36	169	14.1	66.3		
		Color Bounce from Open over fixed Colors to Yellow (full) and back, Fast-Slow	170	214	66.7	83.9		

		Color Bounce Stop	215	215	84.3	84.3		
		Invert Color Bounce from Yellow (Full) over fixed Colors to Open and back, Slow-Fast	216	255	84.7	100.0		
8	Cyan	Cyan color mixing (see note 1)	0	255	0	100	0	Fade
9	Magenta	Magenta color mixing (see note 1)	0	255	0	100	0	Fade
10	Yellow	Yellow color mixing (see note 1)	0	255	0	100	0	Fade
11	Gobo wheel 1	Open	0	7	0.0	2.7	0	Snap
		Gobo 1	8	15	3.1	5.9		Snap
		Gobo 2	16	23	6.3	9.0		Snap
		Gobo 3	24	31	9.4	12.2		Snap
		Gobo 4	32	39	12.5	15.3		Snap
		Gobo 5	40	47	15.7	18.4		Snap
		Gobo 6	48	55	18.8	21.6		Snap
		Gobo 7	56	63	22.0	24.7		Snap
		Gobo 8	64	71	25.1	27.8		Snap
		Gobo 1 shaking	72	78	28.2	30.6		Snap
		Gobo 2 shaking	79	85	31.0	33.3		Snap
		Gobo 3 shaking	86	92	33.7	36.1		Snap
		Gobo 4 shaking	93	99	36.5	38.8		Snap
		Gobo 5 shaking	100	106	39.2	41.6		Snap
		Gobo 6 shaking	107	113	42.0	44.3		Snap
		Gobo 7 shaking	114	120	44.7	47.1		Snap
		Gobo 8 shaking	121	127	47.5	49.8		Snap
		Gobo wheel spin stop	128	128	50.2	50.2		Fade
		Gobo wheel spin clockwise fast > slow	129	191	50.6	74.9		Fade
		Gobo wheel spin stop	192	192	75.3	75.3		Fade
Gobo wheel spin counterclockwise slow > fast	193	255	75.7	100	Fade			
12	Gobo wheel 2	Open	0	4	0.0	1.6	0	Snap
		Gobo 1 indexed	5	9	2.0	3.5		Snap
		Gobo 2 indexed	10	14	3.9	5.5		Snap
		Gobo 3 indexed	15	19	5.9	7.5		Snap
		Gobo 4 indexed	20	24	7.8	9.4		Snap
		Gobo 5 indexed	25	29	9.8	11.4		Snap
		Gobo 6 indexed	30	34	11.8	13.3		Snap
		Gobo 1 rotate	35	39	13.7	15.3		Snap
		Gobo 2 rotate	40	44	15.7	17.3		Snap
		Gobo 3 rotate	45	49	17.6	19.2		Snap
		Gobo 4 rotate	50	54	19.6	21.2		Snap
		Gobo 5 rotate	55	59	21.6	23.1		Snap
		Gobo 6 rotate	60	64	23.5	25.1		Snap
		Gobo 1 shake and index	65	74	25.5	29.0		Snap
		Gobo 2 shake and index	75	84	29.4	32.9		Snap
		Gobo 3 shake and index	85	94	33.3	36.9		Snap
		Gobo 4 shake and index	95	104	37.3	40.8		Snap
		Gobo 5 shake and index	105	114	41.2	44.7		Snap
		Gobo 6 shake and index	115	124	45.1	48.6		Snap
		Gobo 1 shake and rotate	125	134	49.0	52.5		Snap
		Gobo 2 shake and rotate	135	144	52.9	56.5		Snap
		Gobo 3 shake and rotate	145	154	56.9	60.4		Snap
		Gobo 4 shake and rotate	155	164	60.8	64.3		Snap
		Gobo 5 shake and rotate	165	174	64.7	68.2		Snap
		Gobo 6 shake and rotate	175	184	68.6	72.2		Snap
		Gobo wheel spin stop	185	185	72.5	72.5		Snap
		Gobo wheel spin clockwise fast > slow	186	219	72.9	85.9		Fade
		Gobo wheel spin stop	220	220	86.3	86.3		Snap
		Gobo wheel spin counterclockwise slow > fast	221	255	86.7	100		Fade

13	Gobo 2 Index/Rotate	When Ch. 12 = "indexed"					0	Fade
		Gobo index 0-360°	0	255	0	100		
		When Ch. 12 = "rotate"					0	Fade
		Gobo rotation stop	0	0	0	0		
		Gobo rotation clockwise fast > slow	1	127	0.4	49.8		
		Gobo rotation stop	128	128	50.2	50.2		
Gobo rotation counterclockwise slow > fast	129	255	50.6	100				
14	Shutter	Shutter closed	0	4	0	1.6	0	Snap
		Single flash when change on dimmer channel	5	9	2.0	3.5		
		Sync ramp up slow-fast	10	39	3.9	15.3		
		Sync ramp down slow-fast	40	69	15.7	27.1		
		Sync ramp up-down slow-fast	70	99	27.5	38.8		
		Sync double flash (slow-fast)	100	129	39.2	50.6		
		Random strobe pixel (slow-fast)	130	159	51.0	62.4		
		Random strobe all (slow-fast)	160	199	62.7	78.0		
		Sync strobe (1 Hz-10 Hz)	200	250	78.4	98.0		
		Shutter open	251	255	98.4	100		
15	Dimmer	Intensity 0-100%	0	65535	0	100	0	Fade
16	Dimmer fine							
17	Frost	Frost 0 - 100%	0	255	0	100	0	Fade
18	Prism	No prism	0	3	0	1.2	0	Snap
		Prism inserted	4	255	1.6	100		
19	Prism indexing/ rotation	No prism	0	3	0	1.2	0	Fade
		Indexed position from 0-360°	4	191	1.6	74.9		
		Rotation stop	128	128	50.2	50.2		
		Rotation clockwise fast > slow	129	191	50.6	74.9		
		Rotation stop	192	192	75.3	75.3		
Rotation counterclockwise slow > fast	193	255	75.5	100				
20	Focus	Focus 0 > 100%	0	65535	0	100	32767	Fade
21	Focus fine							
22	Zoom	Zoom 0 > 100%	0	255	0	100	128	Fade
23	Control / Settings	No function	0	9	0.0	3.5	0	Snap
		Dimmer curve: Extra-soft (3s hold)	10	15	3.9	5.9		
		Dimmer curve: Linear (3s hold)	16	21	6.3	8.2		
		Display mode: Auto (3s hold)	22	27	8.6	10.6		
		Display mode: On (3s hold)	28	33	11.0	12.9		
		Display mode: Off (3s hold)	34	39	13.3	15.3		
		Display orientation: Normal (3s hold)	40	45	15.7	17.6		
		Display orientation: Inverted (3s hold)	46	51	18.0	20.0		
		No DMX: Blackout (3s hold)	52	57	20.4	22.4		
		No DMX: Hold (3s hold)	58	63	22.7	24.7		
		No DMX: Stand-alone (3s hold)	64	69	25.1	27.1		
		Fan mode: Regulated (3s hold)	70	75	27.5	29.4		
		Fan mode: High (3s hold)	76	81	29.8	31.8		
		Fan mode: Medium (3s hold)	82	87	32.2	34.1		
		Fan mode: Low (3s hold)	88	93	34.5	36.5		
		Position feedback: Off (3s hold)	94	99	36.9	38.8		
		Position feedback: On (3s hold)	100	105	39.2	41.2		
		No function	106	117	41.6	45.9		
		Tilt inversion: Off (3s hold)	118	123	46.3	48.2		
		Tilt inversion: On (3s hold)	124	129	48.6	50.6		
		Pan inversion: Off (3s hold)	130	135	51.0	52.9		
Pan inversion: On (3s hold)	136	141	53.3	55.3				
Zoom inversion: Off (3s hold)	142	147	55.7	57.6				
Zoom inversion: On (3s hold)	148	153	58.0	60.0				

	Defog: Off	154	159	60.4	62.4		
	Defog: On	160	165	62.7	64.7		
	Defog: Quick	166	171	65.1	67.1		
	Load Settings Preset1	172	177	67.5	69.4		
	Load Settings Preset2	178	183	69.8	71.8		
	Load Settings Preset3	184	189	72.2	74.1		
	PWM 600 Hz (5s hold)	190	195	74.5	76.5		
	PWM: 2200 Hz (5s hold)	196	201	76.9	78.8		
	PWM: 3000 Hz (5s hold)	202	207	79.2	81.2		
	PWM: 4800 Hz (5s hold)	208	213	81.6	83.5		
	PWM: 9600 Hz (5s hold)	214	219	83.9	85.9		
	PWM: 25 kHz (5s hold)	220	225	86.3	88.2		
	No function	226	231	88.6	90.6		
	Return to default settings	232	237	91.0	92.9		
	Reset Pan/Tilt (3s hold)	238	243	93.3	95.3		
	Reset Head (3s hold)	244	249	95.7	97.6		
	Reset All (3s hold)	250	255	98.0	100		

Note 1: When CMY channels 8-10 are above zero, they take priority over the static color wheel CMY controls on channels 5-7.

To set a fixed color on channel 5, ensure that channel 8 is at zero.

To set a fixed color on channel 6, ensure that channel 9 is at zero.

To set a fixed color on channel 7, ensure that channel 10 is at zero.

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