ETC Reference Guide
Relevé Spot DMX Channel Map

Overview

Relevé Spot DMX Channel Map has two modes of operation, which are accessible in the **Control Settings** menu from the user interface.

- Standard Mode utilizes 20 channels of control. This is the default setting. See *Standard on the next page*. Standard Mode enables efficient use of DMX channel bandwidth.
- Direct Mode utilizes 25 channels of control. See *Direct on page 10*. Direct Mode enables individual control of the luminaire features.

Note: *The color output of all Relevé Spot DMX Channel Map luminaires is calibrated at the factory. When operating in Standard Mode, each luminaire makes accommodations for the specific LEDs in its array and produces output that is consistent with other luminaires, whether or not they utilize LEDs from the same production batch. Operating in Direct Mode bypasses this calibration, and multiple luminaires may produce slightly different outputs when controlled as a group.*

Standard Mode		Direct Mode	
Channel	Parameter	Channel	Parameter
1	Intensity	1	Intensity
2	Red	2	Red
3	Green	3	Green
4	Blue	4	Blue
5	Strobe	5	Lime
6	Pan Coarse	6	Strobe
7	Pan Fine	7	Pan Coarse
8	Tilt Coarse	8	Pan Fine
9	Tilt Fine	9	Tilt Coarse
10	Gobo Mode	10	Tilt Fine
11	16-bit Gobo Index Coarse	11	Gobo Mode
12	16-bit Gobo Index Fine	12	16-bit Gobo Index Coarse
13	Ani-gobo Mode	13	16-bit Gobo Index Fine
14	Ani-gobo Index	14	Ani-gobo Mode
15	Focus Coarse	15	Ani-gobo Index
16	Focus Fine	16	Focus Coarse
17	Zoom	17	Focus Fine
18	Iris	18	Zoom
19	Frost	19	Iris
20	Configuration	20	Frost
		21	Configuration
		22	Pan/Tilt Speed
		23	Zoom/Focus Speed
		24	Reserved
		25	Beam Speed

Standard

DMX Channel	Function	Description	Range	Default	Notes
1	Intensity	Color intensity	0-255	0	Linearly variable intensity control. Intensity changes shorter than 0.5 s are considered "bumps" and will be performed instantly.
2	Red	Red saturation	0-255	0	Linearly variable color control with 0 being no saturation and 255 being full saturation. See note *1 on page 9*.
3	Green	Green saturation	0-255	0	
4	Blue	Indigo saturation	0-255	0	
5	Strobe	No strobe (shutter open)	0		
		Dark strobe	1-40		
		Bright strobe	41-80		
		Pulse strobe	81-120	0	See *Strobe on page 18*.
		Random strobe	121-160		
		Flicker effect	161-200		
		Unassigned	201-240		Same as "No strobe" but reserved for future use.
		LEDs Off (shutter closed)	241-254		
		No strobe (shutter open)	255		
6 / 7	Pan Coarse	16-bit pan of 540° (See note *2 on page 9*.)	0-255	128	
	Pan Fine		0-255	128	
8 / 9	Tilt Coarse	16-bit tilt of 270° (See note *2 on page 9*.)	0-255	128	
	Tilt Fine		0-255	128	

DMX Channel	Function	Description	Range	Default	Notes
10	Gobo Mode	Indexed, Open	0-9		
		Indexed, Gobo 1	10-19		Gobo index set by channel 11 / 12.
		Indexed, Gobo 2	20-29		
		Indexed, Gobo 3	30-39		
		Indexed, Gobo 4	40-49		
		Indexed, Gobo 5	50-59		
		Continuous Rotation, Open	60-69		Gobo continuous rotation set by channel 11 / 12.
		Continuous Rotation, Gobo 1	70-79		
		Continuous Rotation, Gobo 2	80-89		
		Continuous Rotation, Gobo 3	90-99		
		Continuous Rotation, Gobo 4	100-109		
		Continuous Rotation, Gobo 5	110-119	0	
		Shake, Open	120-129		
		Shake, Gobo 1	130-139		Gobo shake speed set by channel 11 / 12.
		Shake, Gobo 2	140-149		
		Shake, Gobo 3	150-159		
		Shake, Gobo 4	160-169		
		Shake, Gobo 5	170-179		
		Full Wheel Rotate	180-189		Full wheel rotate speed set by channel 11 / 12.
		Unassigned	190-245		Same as "Open" but reserved for future use.
		Open	246-255		

DMX Channel	Function	Description	Range	Default	Notes
		Indexes gobo selected on channel 10	0-65535		Clockwise from 0° to 360°.
			0-255		Stop (position not indexed).
			256-32767		Counter-clockwise fast to slow.
		Continuously rotates gobo selected on channel 10	32768-33023		Stop (position not indexed).
			33024-65279		Clockwise from slow to fast.
			65280-65535		Stop (position not indexed).
11 / 12	16-bit Gobo Index Coarse 16-bit Gobo Index Fine		0-255	0	Stop.
		Shakes gobo selected on channel 10	256-65279		Shake fast to slow.
			65280-65535		Stop.
			0-255		Stop.
		Rotates full gobo wheel, mode selected on channel 10	256-32767		Counter-clockwise fast to slow.
			32768-33023		Stop.
			33024-65279		Clockwise slow to fast.
			65280-65535		Stop.
		Unassigned	0-65535		Same as "Open" but reserved for future use.
		Open	0-65535		

DMX Channel	Function	Description	Range	Default	Notes
		Open	0-3		
		Position	4-13		Index to preselected position on the Ani-gobo wheel. Position set by channel 14.
		Position - shake	14-24		Shake up the next position on the Ani-gobo wheel. Position set by channel 14.
		Indexed	25-35		Index to any position on the Ani-gobo wheel. Position set by channel 14.
		Rotate	36-46		Continuous rotation of the entire Ani-gobo wheel. Speed set by channel 14.
		Rotate animation	47-57		Continuous rotation of the entire Ani-gobo wheel, skipping open. Speed set by channel 14.
13	Ani-gobo Mode	Light animation	58-68	0	Shakes between position 1 and position 3. Speed set by channel 14.
		Medium animation	69-79		Shakes between position 2 and position 4. Speed set by channel 14.
		Dark animation	80-90		Shakes between position 3 and position 6. Speed set by channel 14.
		Full animation	91-101		Shakes between position 1 and position 6. Speed set by channel 14.
		Unassigned	102-251		Same as "Open" but reserved for future use.
		Open	252-255		

DMX Channel	Function	Description	Range	Default	Notes
		Open	0-255		
		Indexes Ani-gobo wheel to preselected position. Mode selected on channel 13.	0-9		Position 0 - Open
			10-50		Position 1 - Jagged
			51-91		Position 2 - Breakup
			92-132		Position 3 - Vines
			133-173		Position 4 - Swirly
			174-214		Position 5 - Ivy
			215-255		Position 6 - Dots
14	Ani-gobo Index		0-9	0	Position 0 - Open
			10-50		Shakes position 1, slow to fast.
		Shakes Ani-gobo wheel at preselected position. Mode selected on channel 13.	51-91		Shakes position 2, slow to fast.
			92-132		Shakes position 3, slow to fast.
			133-173		Shakes position 4, slow to fast.
			174-214		Shakes position 5, slow to fast.
			215-255		Shakes position 6, - slow to fast.
		Indexes the entire Ani-gobo wheel. Mode selected on channel 13.	0-255		
		Rotates the entire Ani-gobo wheel. Mode selected on channel 13.	0-3		Stop.
			4-126		Rotates counter-clockwise fast to slow.

DMX Channel	Function	Description	Range	Default	Notes
			127-129		Stop.
		Rotates the entire Ani-gobo wheel. Mode selected on channel 13 (continued).	130-251		Rotates clockwise slow to fast.
			252-255		Stop.
			0-3		Stop.
			4-126		Rotates clockwise, skipping open, fast to slow.
14 (continued)	Ani-gobo Index	Rotates the entire Ani-gobo wheel, skipping open. Mode selected on channel 13.	127-129	0	Stop.
			130-251		Rotates counter-clockwise, skipping open, fast to slow.
			252-255		Stop.
		Animates selected position on channel 13.	0-255		Slow to fast.
		Unassigned	0-255		Same as "Open" but reserved for future use.
		Open	0-255		
15	Focus Coarse	Coarse focus control	0-255	128	
16	Focus Fine	Fine focus control	0-255	128	
17	Zoom	Zoom 18° to 54°	0-255	128	
		Open	0-10	0	
		Indexed	11-127	11	Open to closed.
		Closed	128	128	
18	Iris	Pulse	129-188	129	Slow to fast.
		Strobe	189-245	189	Slow to fast.
		Open	246-255	255	

Overview

DMX Channel	Function	Description	Range	Default	Notes
19	Frost	Insert frost	0-255		
20	Configuration (See note *3 on the facing page.*)	Idle	0-9	0	
		Reset entire fixture	10-19		Reset commands.
		Reset gobo and iris	20-29		
		Reset zoom and focus	30-39		
		Fan speed, off	40-49		
		Fan speed, Studio Mode	50-59		
		Fan speed, auto (default)	60-69		
		Data loss, hold last look (default)	70-79		
		Data loss, home	80-89		
		Data loss, wait and fade	90-99		
		Default pan/tilt settings	100-109		
		Sleep mode, auto (default)	110-119		
		Sleep mode, off	120-129		Implemented in a future release.
		Sleep mode, DMX	130-139		
		Sleep, now	140-149		
		Display, auto (default)	150-159		
		Display, off	160-169		
		Default all features	170-179		
		Unassigned	180-255		Reserved for future use

Notes
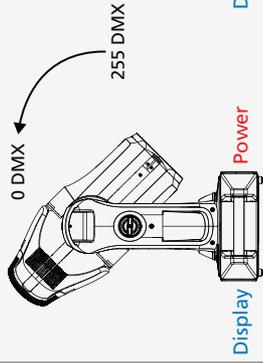
|	
1	The color output of all ReleveéSpot DMX Channel Map luminaires is calibrated at the factory. When operating in Standard Mode, each luminaire makes accommodations for the specific LEDs in its array and produces output that is consistent with other luminaires, whether or not they utilize LEDs from the same production batch.
2	DMX Luminaire Orientation **Tilt movement range = 270°** **Pan movement range = 540°** Tilt = 255 DMX Tilt = 128 DMX Tilt = 0 DMX Pan = 128 DMX Pan = 128 DMX Pan = 128 DMX Pan = 255 DMX Pan = 128 DMX Pan = 0 DMX Tilt = 34 DMX Tilt = 34 DMX Tilt = 34 DMX
3	When creating a Relevé profile or to control configuration settings without a profile, activate the configuration settings by setting channel 18 to DMX 100, followed by setting channel 20 from 0 directly to the intended value, and then hold there for at least 2 seconds without moving, and then set channel 20 back to 0. If the channel is controlled using a fade, the channel will do nothing until it sees 0 again. **Note:** *Ensure that any changes made to channel 20 are not recorded into any cues, presets, or fades.*
4	RDM Manufacturer ID: 0x6574 (Electronic Theatre Controls)
5	RDM Model ID: 0x2001
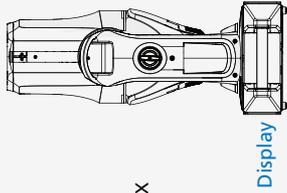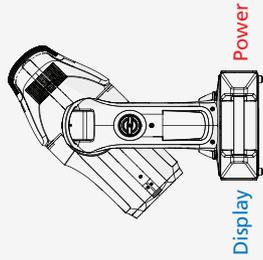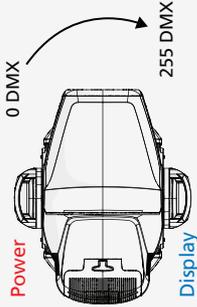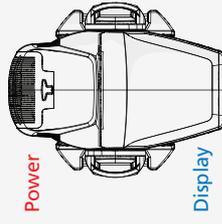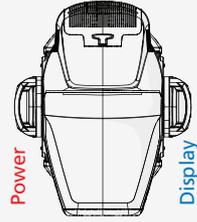
Direct

DMX Channel	Function	Description	Range	Default	Notes
1	Intensity	Color intensity	0-255	0	Linearly variable intensity control. Intensity changes shorter than 0.5 s are considered "bumps" and will be performed instantly.
2	Red	Red saturation	0-255	255	Linearly variable color control with 0 being no saturation and 255 being full saturation. See note *1 on page 17*.
3	Green	Green saturation	0-255	255	
4	Blue	Indigo saturation	0-255	255	
5	Lime	Lime saturation	0-255	255	
6	Strobe	No strobe (shutter open)	0	0	See *Strobe on page 18*.
		Dark strobe	1-40		
		Bright strobe	41-80		
		Pulse strobe	81-120		
		Random strobe	121-160		
		Flicker effect	161-200		
		Unassigned	201-240		
		LEDs off (shutter closed)	241-254		Same as "No strobe" but reserved for future use.
		No strobe (shutter open)	255		
7	Pan Coarse	16-bit pan of 540°	0-255	128	
8	Pan Fine	(See note *2 on page 17*.)	0-255	128	
9	Tilt Coarse	16-bit tilt of 270°	0-255	128	
10	Tilt Fine	(See note *2 on page 17*.)	0-255	128	

DMX Channel	Function	Description	Range	Default	Notes
		Indexed, Open	0-9		
		Indexed, Gobo 1	10-19		
		Indexed, Gobo 2	20-29		Gobo index set by channel 12 / 13.
		Indexed, Gobo 3	30-39		
		Indexed, Gobo 4	40-49		
		Indexed, Gobo 5	50-59		
		Continuous Rotation, Open	60-69		
		Continuous Rotation, Gobo 1	70-79		
		Continuous Rotation, Gobo 2	80-89		Gobo continuous rotation set by channel 12 / 13.
		Continuous Rotation, Gobo 3	90-99		
11	Gobo Mode	Continuous Rotation, Gobo 4	100-109	0	
		Continuous Rotation, Gobo 5	110-119		
		Shake, Open	120-129		
		Shake, Gobo 1	130-139		
		Shake, Gobo 2	140-149		Gobo shake speed set by channel 12 / 13.
		Shake, Gobo 3	150-159		
		Shake, Gobo 4	160-169		
		Shake, Gobo 5	170-179		
		Full Wheel Rotate	180-189		Full wheel rotate speed set by channel 12 / 13.
		Unassigned	190-245		Same as "Open" but reserved for future use.
		Open	246-255		

DMX Channel	Function	Description	Range	Default	Notes
12 / 13		Indexes gobo selected on channel 11	0-65535		Clockwise from 0° to 360°.
			0-255		Stop (position not indexed).
		Continuously rotates gobo selected on channel 11	256-32767		Counter-clockwise fast to slow.
			32768-33023		Stop (position not indexed).
			33024-65279		Clockwise from slow to fast.
			65280-65535		Stop (position not indexed).
	16-bit Gobo Index Coarse	Shakes gobo selected on channel 11	0-255	0	Stop.
			256-65279		Shake fast to slow.
	16-bit Gobo Index Fine		65280-65535		Stop.
		Rotates full gobo wheel, mode selected on channel 11	0-255		Stop.
			256-32767		Counter-clockwise fast to slow.
			32768-33023		Stop.
			33024-65279		Clockwise slow to fast.
			65280-65535		Stop.
		Unassigned	0-65535		Same as "Open" but reserved for future use.
		Open	0-65535		

DMX Channel	Function	Description	Range	Default Notes
		Open	0-3	
		Position	4-13	Index to ere-selected position on the Ani-gobo wheel. Position set by channel 15.
		Position - shake	14-24	Shake up the next position on the Ani-gobo wheel. Position set by channel 15.
		Indexed	25-35	Index to any position on the Ani-gobo wheel. Position set by channel 15.
		Rotate	36-46	Continuous rotation of the entire Ani-gobo wheel. Speed set by channel 15.
14	Ani-gobo Mode	Rotate animation	47-57	Continuous rotation of the entire Ani-gobo wheel, skipping open. Speed set by channel 15.
		Light animation	58-68	0 Shakes between position 1 and position 3. Speed set by channel 15.
		Medium animation	69-79	Shakes between position 2 and position 4. Speed set by channel 15.
		Dark animation	80-90	Shakes between position 3 and position 6. Speed set by channel 15.
		Full animation	91-101	Shakes between position 1 and position 6. Speed set by channel 15.
		Unassigned	102-251	Same as "Open" but reserved for future use.
		Open	252-255	
15	Ani-gobo Index	Open	0-255	

DMX Channel	Function	Description	Range	Default	Notes
			0-9		Position 0 - Open
			10-50		Position 1 - Jagged
			51-91		Position 2 - Break-up
		Indexes Ani-gobo wheel to preselected position. Mode selected on channel 14.	92-132		Position 3 - Vines
			133-173		Position 4 - Swirly
			174-214		Position 5 - Ivy
			215-255		Position 6 - Dots
			0-9		Position 0 - Open
			10-50		Shakes position 1, slow to fast.
			51-91		Shakes position 2, slow to fast.
		Shakes Ani-gobo wheel at preselected position. Mode selected on channel 14.	92-132		Shakes position 3, slow to fast.
			133-173		Shakes position 4, slow to fast.
			174-214		Shakes position 5, slow to fast.
			215-255		Shakes position 6, slow to fast.
15 (continued)	Ani-gobo Index	Indexes the entire Ani-gobo wheel. Mode selected on channel 14.	0-255	0	
			0-3		Stop.
			4-126		Rotates counter-clockwise fast to slow.
		Rotates the entire Ani-gobo wheel. Mode selected on channel 14.	127-129		Stop
			130-251		Rotates clockwise slow to fast.
			252-255		Stop.
			0-3		Stop.
			4-126		Rotates clockwise, skipping open fast to slow.
		Rotates the entire Ani-gobo wheel, skipping open. Mode selected on channel 14.	127-129		Stop.
			130-251		Rotates counter-clockwise, skipping open fast to slow.
			252-255		Stop.
		Animates position selected on channel 14.	0-255		Slow to fast.
		Unassigned	0-255		Same as "Open" but reserved for future use.
		Open	0-255		
16	Focus Coarse	Coarse focus control	0-255	128	

DMX Channel	Function	Description	Range	Default	Notes
17	Focus Fine	Fine focus control	0-255	128	
18	Zoom	Zoom 18° to 54°	0-255	128	
		Open	0-10	0	
		Indexed	11-127	11	Open to closed.
19	Iris	Closed	128	128	
		Pulse	129-188	129	Slow to fast.
		Strobe	189-245	189	Slow to fast.
		Open	246-255	255	
20	Frost	Insert frost	0-255	0	
		Idle	0-9		
		Reset entire fixture	10-19		Reset commands.
		Reset gobo and iris	20-29		
		Reset zoom and focus	30-39		
		Fan speed, off	40-49		
		Fan speed, Studio Mode	50-59		
		Fan speed, auto (default)	60-69		
		Data loss, hold last look(default)	70-79		
	Configuration	Data loss, home	80-89		
21	(See note *3 on page 17*.)	Data loss, wait and fade	90-99	0	
		Default pan/tilt settings	100-109		
		Sleep mode, auto (default)	110-119		Implemented in a future release.
		Sleep mode, off	120-129		
		Sleep mode, DMX	130-139		
		Sleep now	140-149		
		Display, auto (default)	150-159		
		Display, off	160-169		
		Default all features	170-179		
		Unassigned	180-255		Reserved for future use.
22	Pan/Tilt Speed	Adjust pan/tilt speed	0-3	0	Slow (quiet).
			4-255		Slow to fast.

DMX Channel	Function	Description	Range	Default	Notes
23	Zoom/Focus Speed	Adjust zoom/focus speed	0-3		Slow (quiet).
			4-255	0	Slow to fast.
24	Unassigned	Unassigned	0-3	0	Reserved for future use.
25	Beam Speed	Adjust beam functions speed	0-3		Slow (quiet).
			4-255	0	Slow to fast.

Notes

1	The color output of all Relevé Spot DMX Channel Map luminaires is calibrated at the factory. Operating in Direct Mode bypasses this calibration, and multiple luminaires may produce slightly different outputs when controlled as a group.
2	DMX Luminaire Orientation

Tilt movement range = 270°   **Pan movement range = 540°**

0 DMX / 255 DMX
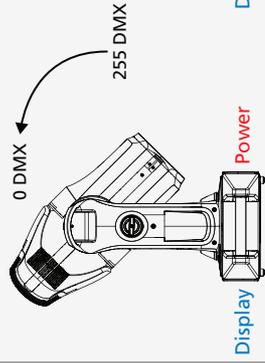
Display / Power
Tilt = 255 DMX
Pan = 128 DMX

Display / Power
Tilt = 128 DMX
Pan = 128 DMX

Display / Power
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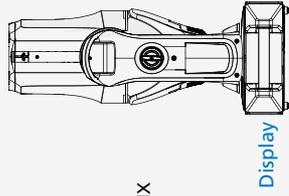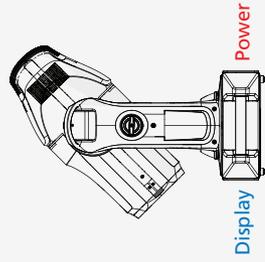
0 DMX / 255 DMX
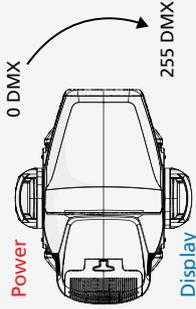
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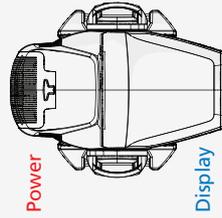
Power / Display
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Tilt = 34 DMX
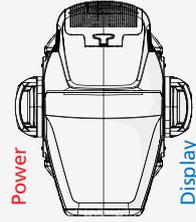
Power / Display
Pan = 0 DMX
Tilt = 34 DMX |
| 3 | When creating a Relevé profile or to control configuration settings without a profile, activate the configuration settings by setting channel 19 to DMX 100, followed by setting channel 21 from 0 directly to the intended value and hold there for at least 2 seconds without moving, and then set channel 21 back to 0. If the channel is controlled using a fade, the channel will do nothing until it sees 0 again.

ⓘ **Note:** *Ensure that any changes made to channel 21 are not recorded into any cues, presets, or fades.* |
| 4 | RDM Manufacturer ID: 0x6574 (Electronic Theatre Controls) |
| 5 | RDM Model ID: 0x2001 |

Strobe

DMX	Strobe Function	Freq. (Hz)	On Time (ms)	Off Time (ms)	Fade Up (ms)	Fade Down (ms)	Random Min (ms)	Random Max (ms)
0	No Strobe (Shutter Open)							
1	Dark Strobe	1.00	10	990	0	0		
2	Dark Strobe	1.03	10	965	0	0		
3	Dark Strobe	1.05	10	940	0	0		
4	Dark Strobe	1.08	10	915	0	0		
5	Dark Strobe	1.11	10	890	0	0		
6	Dark Strobe	1.14	10	865	0	0		
7	Dark Strobe	1.18	10	840	0	0		
8	Dark Strobe	1.21	10	815	0	0		
9	Dark Strobe	1.25	10	790	0	0		
10	Dark Strobe	1.29	10	765	0	0		
11	Dark Strobe	1.33	10	740	0	0		
12	Dark Strobe	1.38	10	715	0	0		
13	Dark Strobe	1.43	10	690	0	0		
14	Dark Strobe	1.48	10	665	0	0		
15	Dark Strobe	1.54	10	640	0	0		
16	Dark Strobe	1.60	10	615	0	0		
17	Dark Strobe	1.67	10	590	0	0		
18	Dark Strobe	1.74	10	565	0	0		
19	Dark Strobe	1.82	10	540	0	0		
20	Dark Strobe	1.90	10	515	0	0		
21	Dark Strobe	2.00	10	490	0	0		
22	Dark Strobe	2.11	10	465	0	0		
23	Dark Strobe	2.22	10	440	0	0		
24	Dark Strobe	2.35	10	415	0	0		
25	Dark Strobe	2.50	10	390	0	0		
26	Dark Strobe	2.67	10	365	0	0		

DMX	Strobe Function	Freq. (Hz)	On Time (ms)	Off Time (ms)	Fade Up (ms)	Fade Down (ms)	Random Min (ms)	Random Max (ms)
27	Dark Strobe	2.86	10	340	0	0		
28	Dark Strobe	3.08	10	315	0	0		
29	Dark Strobe	3.33	10	290	0	0		
30	Dark Strobe	3.64	10	265	0	0		
31	Dark Strobe	4.00	10	240	0	0		
32	Dark Strobe	4.44	10	215	0	0		
33	Dark Strobe	5.00	10	190	0	0		
34	Dark Strobe	5.71	10	165	0	0		
35	Dark Strobe	6.67	10	140	0	0		
36	Dark Strobe	8.00	10	115	0	0		
37	Dark Strobe	10.00	10	90	0	0		
38	Dark Strobe	13.33	10	65	0	0		
39	Dark Strobe	20.00	10	40	0	0		
40	Dark Strobe	40.00	10	15	0	0		
41	Bright Strobe	1.00	990	10	0	0		
42	Bright Strobe	1.03	965	10	0	0		
43	Bright Strobe	1.05	940	10	0	0		
44	Bright Strobe	1.08	915	10	0	0		
45	Bright Strobe	1.11	890	10	0	0		
46	Bright Strobe	1.14	865	10	0	0		
47	Bright Strobe	1.18	840	10	0	0		
48	Bright Strobe	1.21	815	10	0	0		
49	Bright Strobe	1.25	790	10	0	0		
50	Bright Strobe	1.29	765	10	0	0		
51	Bright Strobe	1.33	740	10	0	0		
52	Bright Strobe	1.38	715	10	0	0		
53	Bright Strobe	1.43	690	10	0	0		
54	Bright Strobe	1.48	665	10	0	0		
55	Bright Strobe	1.54	640	10	0	0		
56	Bright Strobe	1.60	615	10	0	0		

DMX	Strobe Function	Freq. (Hz)	On Time (ms)	Off Time (ms)	Fade Up (ms)	Fade Down (ms)	Random Min (ms)	Random Max (ms)
57	Bright Strobe	1.67	590	10	0	0		
58	Bright Strobe	1.74	565	10	0	0		
59	Bright Strobe	1.82	540	10	0	0		
60	Bright Strobe	1.90	515	10	0	0		
61	Bright Strobe	2.00	490	10	0	0		
62	Bright Strobe	2.11	465	10	0	0		
63	Bright Strobe	2.22	440	10	0	0		
64	Bright Strobe	2.35	415	10	0	0		
65	Bright Strobe	2.50	390	10	0	0		
66	Bright Strobe	2.67	365	10	0	0		
67	Bright Strobe	2.86	340	10	0	0		
68	Bright Strobe	3.08	315	10	0	0		
69	Bright Strobe	3.33	290	10	0	0		
70	Bright Strobe	3.64	265	10	0	0		
71	Bright Strobe	4.00	240	10	0	0		
72	Bright Strobe	4.44	215	10	0	0		
73	Bright Strobe	5.00	190	10	0	0		
74	Bright Strobe	5.71	165	10	0	0		
75	Bright Strobe	6.67	140	10	0	0		
76	Bright Strobe	8.00	115	10	0	0		
77	Bright Strobe	10.00	90	10	0	0		
78	Bright Strobe	13.33	65	10	0	0		
79	Bright Strobe	20.00	40	10	0	0		
80	Bright Strobe	40.00	15	10	0	0		
81	Pulse Strobe	0.51	10	1755	100	100		
82	Pulse Strobe	0.52	10	1710	100	100		
83	Pulse Strobe	0.53	10	1665	100	100		
84	Pulse Strobe	0.55	10	1620	100	100		
85	Pulse Strobe	0.56	10	1575	100	100		
86	Pulse Strobe	0.57	10	1530	100	100		

DMX	Strobe Function	Freq. (Hz)	On Time (ms)	Off Time (ms)	Fade Up (ms)	Fade Down (ms)	Random Min (ms)	Random Max (ms)
87	Pulse Strobe	0.59	10	1485	100	100		
88	Pulse Strobe	0.61	10	1440	100	100		
89	Pulse Strobe	0.62	10	1395	100	100		
90	Pulse Strobe	0.64	10	1350	100	100		
91	Pulse Strobe	0.66	10	1305	100	100		
92	Pulse Strobe	0.68	10	1260	100	100		
93	Pulse Strobe	0.70	10	1215	100	100		
94	Pulse Strobe	0.72	10	1170	100	100		
95	Pulse Strobe	0.75	10	1125	100	100		
96	Pulse Strobe	0.78	10	1080	100	100		
97	Pulse Strobe	0.80	10	1035	100	100		
98	Pulse Strobe	0.83	10	990	100	100		
99	Pulse Strobe	0.87	10	945	100	100		
100	Pulse Strobe	0.90	10	900	100	100		
101	Pulse Strobe	0.94	10	855	100	100		
102	Pulse Strobe	0.98	10	810	100	100		
103	Pulse Strobe	1.03	10	765	100	100		
104	Pulse Strobe	1.08	10	720	100	100		
105	Pulse Strobe	1.13	10	675	100	100		
106	Pulse Strobe	1.19	10	630	100	100		
107	Pulse Strobe	1.26	10	585	100	100		
108	Pulse Strobe	1.33	10	540	100	100		
109	Pulse Strobe	1.42	10	495	100	100		
110	Pulse Strobe	1.52	10	450	100	100		
111	Pulse Strobe	1.63	10	405	100	100		
112	Pulse Strobe	1.75	10	360	100	100		
113	Pulse Strobe	1.90	10	315	100	100		
114	Pulse Strobe	2.08	10	270	100	100		
115	Pulse Strobe	2.30	10	225	100	100		
116	Pulse Strobe	2.56	10	180	100	100		

DMX	Strobe Function	Freq. (Hz)	On Time (ms)	Off Time (ms)	Fade Up (ms)	Fade Down (ms)	Random Min (ms)	Random Max (ms)
117	Pulse Strobe	2.90	10	135	100	100		
118	Pulse Strobe	3.33	10	90	100	100		
119	Pulse Strobe	3.92	10	45	100	100		
120	Pulse Strobe	4.76	10	0	100	100		
121	Random Strobe	N/A	10	Random	0	0		
122	Random Strobe	N/A	10	Random	0	0	500	2000
123	Random Strobe	N/A	10	Random	0	0	488	1962
124	Random Strobe	N/A	10	Random	0	0	477	1923
125	Random Strobe	N/A	10	Random	0	0	465	1885
126	Random Strobe	N/A	10	Random	0	0	454	1846
127	Random Strobe	N/A	10	Random	0	0	442	1808
128	Random Strobe	N/A	10	Random	0	0	431	1769
129	Random Strobe	N/A	10	Random	0	0	419	1731
130	Random Strobe	N/A	10	Random	0	0	408	1692
131	Random Strobe	N/A	10	Random	0	0	396	1654
132	Random Strobe	N/A	10	Random	0	0	385	1615
133	Random Strobe	N/A	10	Random	0	0	373	1577
134	Random Strobe	N/A	10	Random	0	0	362	1538
135	Random Strobe	N/A	10	Random	0	0	350	1500
136	Random Strobe	N/A	10	Random	0	0	338	1462
137	Random Strobe	N/A	10	Random	0	0	327	1423
138	Random Strobe	N/A	10	Random	0	0	315	1385
139	Random Strobe	N/A	10	Random	0	0	304	1346
140	Random Strobe	N/A	10	Random	0	0	292	1308
141	Random Strobe	N/A	10	Random	0	0	281	1269
142	Random Strobe	N/A	10	Random	0	0	269	1231
143	Random Strobe	N/A	10	Random	0	0	258	1192
144	Random Strobe	N/A	10	Random	0	0	246	1154
145	Random Strobe	N/A	10	Random	0	0	235	1115
146	Random Strobe	N/A	10	Random	0	0	223	1077

DMX	Strobe Function	Freq. (Hz)	On Time (ms)	Off Time (ms)	Fade Up (ms)	Fade Down (ms)	Random Min (ms)	Random Max (ms)
147	Random Strobe	N/A	10	Random	0	0	212	1038
148	Random Strobe	N/A	10	Random	0	0	200	1000
149	Random Strobe	N/A	10	Random	0	0	188	962
150	Random Strobe	N/A	10	Random	0	0	177	923
151	Random Strobe	N/A	10	Random	0	0	165	885
152	Random Strobe	N/A	10	Random	0	0	154	846
153	Random Strobe	N/A	10	Random	0	0	142	808
154	Random Strobe	N/A	10	Random	0	0	131	769
155	Random Strobe	N/A	10	Random	0	0	119	731
156	Random Strobe	N/A	10	Random	0	0	108	692
157	Random Strobe	N/A	10	Random	0	0	96	654
158	Random Strobe	N/A	10	Random	0	0	85	615
159	Random Strobe	N/A	10	Random	0	0	73	577
160	Random Strobe	N/A	10	Random	0	0	62	538
161	Flicker Effect	N/A	Random	Random	Random 2	Random 3	50	500
162	Flicker Effect	N/A	Random	Random	Random 2	Random 3	500	2000
163	Flicker Effect	N/A	Random	Random	Random 2	Random 3	488	1962
164	Flicker Effect	N/A	Random	Random	Random 2	Random 3	477	1923
165	Flicker Effect	N/A	Random	Random	Random 2	Random 3	465	1885
166	Flicker Effect	N/A	Random	Random	Random 2	Random 3	454	1846
167	Flicker Effect	N/A	Random	Random	Random 2	Random 3	442	1808
168	Flicker Effect	N/A	Random	Random	Random 2	Random 3	431	1769
169	Flicker Effect	N/A	Random	Random	Random 2	Random 3	419	1731
170	Flicker Effect	N/A	Random	Random	Random 2	Random 3	408	1692
171	Flicker Effect	N/A	Random	Random	Random 2	Random 3	396	1654
172	Flicker Effect	N/A	Random	Random	Random 2	Random 3	385	1615
173	Flicker Effect	N/A	Random	Random	Random 2	Random 3	373	1577
174	Flicker Effect	N/A	Random	Random	Random 2	Random 3	362	1538
175	Flicker Effect	N/A	Random	Random	Random 2	Random 3	350	1500
176	Flicker Effect	N/A	Random	Random	Random 2	Random 3	338	1462

DMX	Strobe Function	Freq. (Hz)	On Time (ms)	Off Time (ms)	Fade Up (ms)	Fade Down (ms)	Random Min (ms)	Random Max (ms)
177	Flicker Effect	N/A	Random	Random	Random 2	Random 3	327	1423
178	Flicker Effect	N/A	Random	Random	Random 2	Random 3	315	1385
179	Flicker Effect	N/A	Random	Random	Random 2	Random 3	304	1346
180	Flicker Effect	N/A	Random	Random	Random 2	Random 3	292	1308
181	Flicker Effect	N/A	Random	Random	Random 2	Random 3	281	1269
182	Flicker Effect	N/A	Random	Random	Random 2	Random 3	269	1231
183	Flicker Effect	N/A	Random	Random	Random 2	Random 3	258	1192
184	Flicker Effect	N/A	Random	Random	Random 2	Random 3	246	1154
185	Flicker Effect	N/A	Random	Random	Random 2	Random 3	235	1115
186	Flicker Effect	N/A	Random	Random	Random 2	Random 3	223	1077
187	Flicker Effect	N/A	Random	Random	Random 2	Random 3	212	1038
188	Flicker Effect	N/A	Random	Random	Random 2	Random 3	200	1000
189	Flicker Effect	N/A	Random	Random	Random 2	Random 3	188	962
190	Flicker Effect	N/A	Random	Random	Random 2	Random 3	177	923
191	Flicker Effect	N/A	Random	Random	Random 2	Random 3	165	885
192	Flicker Effect	N/A	Random	Random	Random 2	Random 3	154	846
193	Flicker Effect	N/A	Random	Random	Random 2	Random 3	142	808
194	Flicker Effect	N/A	Random	Random	Random 2	Random 3	131	769
195	Flicker Effect	N/A	Random	Random	Random 2	Random 3	119	731
196	Flicker Effect	N/A	Random	Random	Random 2	Random 3	108	692
197	Flicker Effect	N/A	Random	Random	Random 2	Random 3	96	654
198	Flicker Effect	N/A	Random	Random	Random 2	Random 3	85	615
199	Flicker Effect	N/A	Random	Random	Random 2	Random 3	73	577
200	Flicker Effect	N/A	Random	Random	Random 2	Random 3	62	538
201-240	No Strobe (Shutter Open)						50	500
241-254	LEDs Off (Shutter Closed)							
255	No Strobe (Shutter Open)							