



COBRA²:

DMX channel's functions and their values (45DMX channels):

Mode/Channel	Value	Function
Ex		
1		PAN Movement 8bit :
	0-255	Pan Movement
2		Pan Fine 16bit
	0-255	Fine control of Pan movement
3		TILT Movement 8bit :
	0-255	Tilt Movement
4		Tilt Fine 16bit
	0-255	Fine control of Tilt movement
5		Speed Pan/Tilt movement:
	0-225	max to min speed
	226-235	blackout by movement
	236-245	blackout by all wheel changing
	246-255	no function
6		Pan Motor continuous rotation
	0-63	stop rotation by spinout
	64-127	stop rotation by shortcut
	128-189	Forwards Pan rotation from fast to slow
	190-193	No rotation
	194-255	Backwards Pan rotation from slow to fast
7		Tilt Motor continuous rotation
	0-63	stop rotation by spinout
	64-127	stop rotation by shortcut
	128-189	Forwards Tilt rotation from fast to slow
	190-193	No rotation
	194-255	Backwards Tilt rotation from slow to fast
8		Shutter, strobe:
	0-10	Shutter closed
	11-20	No function (shutter open)
	21-117	Strobe effect slow to fast
	118-126	No function (shutter open)
	127-180	Pulse-effect in sequences
	181-191	No function (shutter open)
	192-245	Random strobe effect slow to fast
246-255	No function (shutter open)	
9		Dimmer intensity:
	0-255	Intensity 0 to 100%
10		Fine Dimmer intensity:
	0-255	Dimmer intensity fine
11		CTO Color :
	0-255	CTO (0-white, 255-100% CTO)
12		CTO Color Fine :
	0-255	CTO Fine
13		Reserved
14		Zoom :
	0-255	Zoom adjustment from small to big
15		Zoom Fine:
	0-255	Zoom adjustment Fine
16		Focus :
	0-255	Continuous adjustment from near to far
17		Focus Fine:
	0-255	Continuous adjustment Fine

18		Auto Focus :	
	0-50	Auto Focus Off	
	51-100	5m	
	101-150	7.5m	
	151-200	10m	
	201-255	15m	
19		AutoFocus Fine:	
	0-255	Continuous adjustment Fine	
20		Zoom mode:	
	0-84	Beam mode	
	85-169	Spot mode	
	170-255	Special mode	
21		Color Wheel :	
	0	Open	
	1-63	CTO (0-100% CTO)	
	64	Color 1	
	65	Color 2	
	66	Color 3	
	67	Color 4	
	68	Color 5	
	69	Color 6	
	70	Color 7	
	71	Color 8	
	72	Color 9	
	73	Color 10	
	74	Color 11	
	75	Color 12	
	76	Color 13	
	77	Color 14	
	78	Color 15	
	79	Color 16	
	80	Color 17	
	81	Color 18	
	82	Color 19	
	83	Color 20	
	84	Color 21	
	85	Color 22	
86	Color 23		
87	Color 24		
88	Color 25		
89	Color 26		
90	Color 27		
	91-127	unused	
	128-189	Forwards rainbow effect from fast to slow	
	190-193	No rotation	
	194-255	Backwards rainbow effect from slow to fast	
22		Color Wheel Fine:	
	0-255	Color Wheel colour change to any position Fine	
23		Cyan Color :	
	0-255	Cyan (0-white, 255-100% Cyan)	
24		Cyan Color Fine :	
	0-255	Cyan Fine	
25		Magenta Color :	
	0-255	Magenta (0-white, 255-100% magenta)	
26		Magenta Color Fine :	
	0-255	Magenta Fine	
27		Yellow Color :	
	0-255	Yellow (0-white, 255-100% Yellow)	
28		Yellow Color Fine :	
	0-255	Yellow Fine	
		Rotating gobos, cont. rotation :	
	0-9	Open	

29	10-13	Rot. gobo 1	
	14-17	Rot. gobo 2	
	18-21	Rot. gobo 3	
	22-25	Rot. gobo 4	
	26-29	Rot. gobo 5	
	30-33	Rot. gobo 6	
	34-37	Rot. gobo 7	
	38-41	Rot. gobo 8	
	42-45	Rot. gobo 9	
	46-49	Rot. gobo 10	
	50-53	Rot. gobo 11	
	54-57	Rot. gobo 12	
	58-68	Gobo 1 shake slow to fast	
	69-79	Gobo 2 shake slow to fast	
	80-90	Gobo 3 shake slow to fast	
	91-101	Gobo 4 shake slow to fast	
	102-112	Gobo 5 shake slow to fast	
	113-123	Gobo 6 shake slow to fast	
	124-134	Gobo 7 shake slow to fast	
	135-145	Gobo 8 shake slow to fast	
	146-156	Gobo 9 shake slow to fast	
	157-167	Gobo 10 shake slow to fast	
	168-178	Gobo 11 shake slow to fast	
	179-189	Gobo 12 shake slow to fast	
190-221	Gobo wheel rotation forwards from fast to slow		
222-223	No rotation		
224-255	Gobo wheel rotation f backwards from slow to fast		
30		Rotating gobo index,rotating gobo rotation 1:	
	0-127	Gobo indexing	
	128-189	Forwards gobo rotation from fast to slow	
	190-193	No rotation	
	194-255	Backwards gobo rotation from slow to fast	
31		Rotating gobo indexing Fine :	
	0-255	Fine indexing	
		Fixed Gobo:	
	0-2	Open	
	3-14	Forwards rotation from fast to slow	
	15-17	No rotation	
	18-29	Backwards rotation from slow to fast	
	30	Gobo 1	
	31	Gobo 2	
	32	Gobo 3	
	33	Gobo 4	
	34	Gobo 5	
	35	Gobo 6	
	36	Gobo 7	
	37	Gobo 8	
	38	Gobo 9	
	39	Gobo 10	
	40	Gobo 11	
	41	Gobo 12	
	42	Gobo 13	
	43	Gobo 14	
	44	Gobo 15	
	45	Gobo 16	
	46	Gobo 17	
	47	Gobo 18	
48	Gobo 19		
49	Gobo 20		
50	Gobo 21		
51	Gobo 22		
52	Gobo 23		

53	Gobo 24
54	Gobo 25
55	Gobo 26
56	Gobo 27
57	Gobo 28
58	Gobo 29
59	Gobo 30
60	Gobo 31
61	Gobo 32
62	Gobo 33
63	Gobo 34
64	Gobo 35
65	Open
66	Gobo 36
67	Gobo 37
68	Gobo 38
69	Gobo 39
70	Gobo 40
71	Gobo 41
72	Gobo 42
73	Gobo 43
74	Gobo 44
75	Gobo 45
76	Gobo 46
77	Gobo 47
78	Gobo 48
79	Gobo 49
80	Gobo 50
81	Gobo 51
82	Gobo 52
83	Gobo 53
84	Gobo 54
85	Gobo 55
86	Gobo 56
87	Gobo 57
88	Gobo 58
89	Gobo 59
90	Gobo 60
91	Gobo 61
92	Gobo 62
93	Gobo 63
94	Gobo 64
95	Open
96	Gobo 65
97	Gobo 66
98	Gobo 67
99	Gobo 68
100	Gobo 69
101	Gobo 70
102	Gobo 71
103	Gobo 72
104	Gobo 73
105	Gobo 74
106	Gobo 75
107	Gobo 76
108	Gobo 77
109	Gobo 78
110	Gobo 79
111	Gobo 1 shake slow to fast
112	Gobo 2 shake slow to fast
113	Gobo 3 shake slow to fast
114	Gobo 4 shake slow to fast
115	Gobo 5 shake slow to fast
116	Gobo 6 shake slow to fast
117	Gobo 7 shake slow to fast
118	Gobo 8 shake slow to fast

119	Gobo 9 shake slow to fast
120	Gobo 10 shake slow to fast
121	Gobo 11 shake slow to fast
122	Gobo 12 shake slow to fast
123	Gobo 13 shake slow to fast
124	Gobo 14 shake slow to fast
125	Gobo 15 shake slow to fast
126	Gobo 16 shake slow to fast
127	Gobo 17 shake slow to fast
128	Gobo 18 shake slow to fast
129	Gobo 19 shake slow to fast
130	Gobo 20 shake slow to fast
131	Gobo 21 shake slow to fast
132	Gobo 22 shake slow to fast
133	Gobo 23 shake slow to fast
134	Gobo 24 shake slow to fast
135	Gobo 25 shake slow to fast
136	Gobo 26 shake slow to fast
137	Gobo 27 shake slow to fast
138	Gobo 28 shake slow to fast
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141	Gobo 31 shake slow to fast
142	Gobo 32 shake slow to fast
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151	Gobo 41 shake slow to fast
152	Gobo 42 shake slow to fast
153	Gobo 43 shake slow to fast
154	Gobo 44 shake slow to fast
155	Gobo 45 shake slow to fast
156	Gobo 46 shake slow to fast
157	Gobo 47 shake slow to fast
158	Gobo 48 shake slow to fast
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160	Gobo 50 shake slow to fast
161	Gobo 51 shake slow to fast
162	Gobo 52 shake slow to fast
163	Gobo 53 shake slow to fast
164	Gobo 54 shake slow to fast
165	Gobo 55 shake slow to fast
166	Gobo 56 shake slow to fast
167	Gobo 57 shake slow to fast
168	Gobo 58 shake slow to fast
169	Gobo 59 shake slow to fast
170	Gobo 60 shake slow to fast
171	Gobo 61 shake slow to fast
172	Gobo 62 shake slow to fast
173	Gobo 63 shake slow to fast
174	Gobo 64 shake slow to fast
175	Gobo 65 shake slow to fast
176	Gobo 66 shake slow to fast
177	Gobo 67 shake slow to fast
178	Gobo 68 shake slow to fast
179	Gobo 69 shake slow to fast
180	Gobo 70 shake slow to fast
181	Gobo 71 shake slow to fast
182	Gobo 72 shake slow to fast
183	Gobo 73 shake slow to fast
184	Gobo 74 shake slow to fast

	185	Gobo 75 shake slow to fast	
	186	Gobo 76 shake slow to fast	
	187	Gobo 77 shake slow to fast	
	188	Gobo 78 shake slow to fast	
	189	Gobo 79 shake slow to fast	
	190-221	Clock-wise scroll from fast to slow	
	222-223	Reserved	
	224-255	Counter clock-wise scroll from slow to fast	
33		<u>Prism 1, Frost:</u>	
	0-40	Open	
	41-83	Prism 1	
	84-126	Prism 2	
	127-169	Prism 3	
	170-212	Prism 4	
	213-255	Frost	
34		<u>Rotating prism index, rotating prism rotation 1</u>	
	0-127	Prism indexing	
	128-189	Forwards prism rotation from fast to slow	
	190-193	No rotation	
	194-255	Backwards prism rotation from slow to fast	
35		<u>Rotating prism indexing Fine 1:</u>	
	0-255	Fine indexing	
36		<u>Prism 2, Frost:</u>	
	0-40	Open	
	41-83	Prism 1	
	84-126	Prism 2	
	127-169	Prism 3	
	170-212	Prism 4	
	213-255	Frost	
37		<u>Rotating prism index, rotating prism rotation 2</u>	
	0-127	Prism indexing	
	128-189	Forwards prism rotation from fast to slow	
	190-193	No rotation	
	194-255	Backwards prism rotation from slow to fast	
38		<u>Rotating prism indexing Fine 2:</u>	
	0-255	Fine indexing	
39		<u>Blanking Zone Number (different zone)</u>	
	0-9	No Blanking	
	10-19	Blanking Zone #1	
	20-29	Blanking Zone #2	
	30-39	Blanking Zone #3	
	40-49	Blanking Zone #4	
	50-255	unused	
40		<u>Blanking Zone Settings (4 points)</u>	
	0-49	No Blanking	
	50-99	Set pan min	
	100-149	Set pan max	
	150-199	Set tilt min	
	200-255	Set tilt max	
41		Reserved	
42		Reserved	
43		Reserved	
44		Reserved	
		<u>Control, reset, internal programs:</u>	
	0-4	unused	
	5-9	Display Off	
	10-14	Display On	
	15-19	Display Invert Off	
	20-24	Display Invert On	
	25-26	Auto fan control mode	
	27-28	Stage fan control mode	
	29-30	Silence fan control mode	
31-32	Super Silence fan control mode		

33-34	Constant Fans Off	
35-36	Constant Fans On	
37-44	unused	
45-49	Square Law	
50-54	Linear	
55-57	1.2K	
58-60	2.4K	
61-63	16K	
64-69	25K	
70-74	Prism Mode Simple	
75-79	Prism Mode Full	
80-84	All motor reset	
85-87	Scan motor reset	
88-90	Colors motor reset	
91-93	Gobo motor reset	
94	unused	
95	Reset P/T Fade Off	
96	Reset P/T Fade On	
97-99	Other motor reset	
100-102	unused	
103-105	unused	
106-108	CMY speed Slow	
109-111	CMY speed Medium	
112-114	CMY speed Fast	
115-117	Prerig INIT Off	
118-120	Prerig INIT On	
121-123	Pan Degree 540°	
124-126	Pan Degree 630°	
127-129	Tilt Degree 540°	
130-132	Tilt Degree 270°	
133-135	CTO Control: Color Wheel	
136-138	CTO Control: Separate Ch	
139-141	Illumination Limit: 25m Distance	
142-144	Illumination Limit: 15m Distance	
145-147	Illumination Limit: 8m Distance	
148-150	Reset LED Fade Off	
151-153	Reset LED Fade On	
154-156	Beam Mode: Limited Range	
157-159	Beam Mode: Full Range	
160-162	Defog Off	
163-165	Defog Auto	
166-168	Defog On	
169-255	unused	