

# DMX CHANNEL FUNCTIONS AND VALUES

## RELATION PROTEUS MAXIMUS™

DMX Channel Values / Functions (61 Total DMX Channels)

Supports Software Versions:  $\geq 1.4.1$

Features subject to change without notice.

\*Rotation direction (Clockwise/Counterclockwise) and control of effects depends on head orientation and Pan/Tilt settings.

Standard	Extended	Value	Function	Hold Time	Default	Snap
1	1		<b>PAN</b>		127	
		0-255	Movement			
2	2		<b>PAN FINE</b>		127	
		0-255	Fine Movement			
3	3		<b>TILT</b>		127	
		0-255	Movement			
4	4		<b>TILT FINE</b>		127	
		0-255	Fine Movement			
5	5		<b>CYAN</b>			
		0-255	0 → 100%			
	6		<b>CYAN FINE</b>			
		0-255	Fine Adjustment			
6	7		<b>MAGENTA</b>			
		0-255	0 → 100%			
	8		<b>MAGENTA FINE</b>			
		0-255	Fine Adjustment			
7	9		<b>YELLOW</b>			
		0-255	0 → 100%			
	10		<b>YELLOW FINE</b>			
		0-255	Fine Adjustment			
8	11		<b>CTO</b>			
		0-255	0 → 100%			
	12		<b>CTO FINE</b>			
		0-255	Fine Adjustment			

Standard	Extended	Value	Function	Hold Time	Default	Snap
9	13		<b>COLOR WHEEL</b>			X
		0-19	Open			
		20-37	Red			
		38-55	Green			
		56-73	UV			
		74-91	High CRI			
		92-109	Orange			
		110-127	Medium Blue			
		128-189	Color Scroll CW FAST to SLOW			
		190-193	NO Rotation			
		194-255	Color Scroll CCW SLOW to FAST			
	14		<b>COLOR WHEEL FINE</b>			X
		0-255	Fine Control of Color Wheel Position			
10	15		<b>ROTATING GOBOS [GOBO WHEEL 1]</b>			X
		0-9	Open			
		10-19	Rotating Gobo 1			
		20-29	Rotating Gobo 2			
		30-39	Rotating Gobo 3			
		40-49	Rotating Gobo 4			
		50-59	Rotating Gobo 5			
		60-69	Rotating Gobo 6			
		70-89	Rotating Gobo 1 Shake SLOW to FAST			
		109	Rotating Gobo 2 Shake SLOW to FAST			
		110-129	Rotating Gobo 3 Shake SLOW to FAST			
		130-149	Rotating Gobo 4 Shake SLOW to FAST			
		150-169	Rotating Gobo 5 Shake SLOW to FAST			
		170-189	Rotating Gobo 6 Shake SLOW to FAST			
		190-221	Gobo Scroll CW FAST to SLOW			
		222-223	STOP			
		224-255	Gobo Scroll CCW SLOW to FAST			
11	16		<b>ROTATING GOBOS INDEXING [GOBO WHEEL 1]</b>			
		0-127	Gobo Indexing			
		128-189	Gobo Scroll CW FAST to SLOW			
		190-193	NO Rotation			
		194-255	Gobo Scroll CCW SLOW to FAST			
12	17		<b>ROTATING GOBOS INDEXING FINE [GOBO WHEEL 1]</b>			
		0-255	Fine Control of Rotating Gobos Indexing			

Standard	Extended	Value	Function	Hold Time	Default	Snap
13	18		<b>FIXED GOBOS [GOBO WHEEL 2]</b>			
		0-9	Open			
		10-19	Gobo 1			
		20-29	Gobo 2			
		30-39	Gobo 3			
		40-49	Gobo 4			
		50-59	Gobo 5			
		60-69	Gobo 6			
		70-77	Gobo 7			
		78-93	Gobo 1 Shake SLOW to FAST			
		94-109	Gobo 2 Shake SLOW to FAST			
		110-125	Gobo 3 Shake SLOW to FAST			
		126-141	Gobo 4 Shake SLOW to FAST			
		142-157	Gobo 5 Shake SLOW to FAST			
		158-173	Gobo 7 Shake SLOW to FAST			
		174-189	Gobo 8 Shake SLOW to FAST			
		190-221	Gobo Scroll CW FAST to SLOW			
		222-223	NO Rotation			
224-255	Gobo Scroll CCW SLOW to FAST					
	19		<b>FIXED GOBO WHEEL INDEXING [GOBO WHEEL 2]</b>			X
		0-255	Fine Control of Fixed Gobo Wheel 2 Indexing			
14	20		<b>ROTATING PRISM, PRISM / GOBO MACROS</b>			
		0-63	Open			
		64-95	4 Prism			
		96-127	4 Facet Linear			
		128-135	Macro1			
		136-143	Macro2			
		144-151	Macro3			
		152-159	Macro4			
		160-167	Macro5			
		168-175	Macro6			
		176-183	Macro7			
		184-191	Macro8			
		192-199	Macro9			
		200-207	Macro10			
		208-215	Macro11			
		216-223	Macro12			
		224-231	Macro13			
		232-239	Macro14			
240-247	Macro15					
248-255	Macro16					

Standard	Extended	Value	Function	Hold Time	Default	Snap
15	21		<b>ROTATING PRISM, PRISM INDEXING</b>			
		0-127	Prism Indexing			
		128-189	Prism Rotation CW FAST to SLOW			
		190-193	NO Rotation			
		194-255	Prism Rotation CCW SLOW to FAST			
	22		<b>ROTATING PRISM, PRISM INDEXING FINE</b>			
		0-255	Fine Control of Prism Indexing			
16	23		<b>FOCUS</b>		127	
		0-255	Focus Adjustment from NEAR to FAR			
17	24		<b>FOCUS FINE</b>		127	
		0-255	Focus Fine Adjustment from NEAR to FAR			
18	25		<b>ZOOM</b>		127	
		0-255	Zoom Adjustment from NARROW to WIDE			
19	26		<b>ZOOM FINE</b>		127	
		0-255	Zoom Fine Adjustment			
	27		<b>AUTO FOCUS</b>			X
		0-50	Auto Focus Off			
		51-100	5m			
		101-150	7.5m			
		151-200	10m			
		201-255	15m			
	28		<b>AUTO FOCUS FINE</b>			
		0-255	Fine Control of Focus Adjustment			
20	29		<b>STROBE</b>		50	
		0-31	Shutter Closed			
		32-63	NO Function (Shutter Open)			
		64-95	Strobe SLOW to FAST			
		96-127	No Function (Shutter Open)			
		128-159	Pulse-effect in sequences			
		160-191	No function (shutter open)			
		192-223	Random strobe effect slow to fast			
224-255	No function (shutter open)					
21	30		<b>DIMMER</b>			
		0-255	0 → 100%			
22	31		<b>DIMMER FINE</b>			
		0-255	Fine Dimming			

Standard	Extended	Value	Function	Hold Time	Default	Snap
23	32		<b>DIM MODES</b>	0s		X
		0-20	Standard			
		21-40	Stage			
		41-60	TV			
		61-80	Architectural			
		81-100	Theatre			
		101-120	Stage 2			
			<b>DIMMER DELAY TIME</b>			
		121	0s			
		122	0.1s			
		123	0.2s			
		124	0.3s			
		125	0.4s			
		126	0.5s			
		127	0.6s			
		128	0.7s			
		129	0.8s			
		130	0.9s			
		131	1.0s			
		132	1.5s			
		133	2.0s			
		134	3.0s			
		135	4.0s			
		136	5.0s			
		137	6.0s			
		138	7.0s			
139	8.0s					
140	9.0s					
141	10s					
	142-255	Idle				

Standard	Extended	Value	Function	Hold Time	Default	Snap
24	33		<b>IRIS</b>			
		0-191	MAX Diameter to MIN Diameter			
		192-223	Pulse Closing FAST to SLOW			
		224-255	Pulse Opening SLOW to FAST			
	34		<b>IRIS FINE</b>			
		0-255	Fine Control of Iris			
25	35		<b>FROST</b>			
		0-127	Open to LIGHT Frost			
		128-255	Open to WASH Frost			
26	36		<b>ANIMATION WHEEL</b>			
		0-7	Open			
		8-255	Animation Rotation MIN to MAX			
27	37		<b>ANIMATION WHEEL, INDEX ROATIONI</b>			
		0-127	Animation Wheel Indexing			
		128-189	Animation Wheel Rotation CW from FAST to SLOW			
		190-193	No Rotation			
		194-255	Animation Wheel Rotation CW from SLOW to FAST			

Standard	Extended	Value	Function	Hold Time	Default	Snap
	38		<b>SPEED of CMY &amp; Color Macro</b>			
		0-255	Speed MAX to MIN			
			<b>COLOR MACROS - CMY &amp; Color Wheel</b>			
		0-31	OFF			
		32-39	Macro1			
		40-47	Macro2			
		48-55	Macro3			
		56-63	Macro4			
		64-71	Macro5			
		72-79	Macro6			
		80-87	Macro7			
		88-95	Macro8			
		96-103	Macro9			
		104-111	Macro10			
		112-119	Macro11			
		120-127	Macro12			
		128-135	Macro13			
	39	136-143	Macro14			X
		144-151	Macro15			
		152-159	Macro16			
		160-167	Macro17			
		168-175	Macro18			
		176-183	Macro19			
		184-191	Macro20			
		192-199	Macro21			
		200-207	Macro22			
		208-215	Macro23			
		216-223	Macro24			
		224-231	Macro25			
		232-239	Macro26			
		240-247	Macro27			
		248-255	Random CMY			

Standard	Extended	Value	Function	Hold Time	Default	Snap
28	40		<b>BLADE 1A</b>			
		0 -255	Open to Close			
	41		<b>BLADE 1A FINE</b>			
		0 -255	Open to Close FINE			
29	42		<b>BLADE 1B</b>			
		0 -255	Open to Close			
	43		<b>BLADE 1B FINE</b>			
		0 -255	Open to Close FINE			
30	44		<b>BLADE 2A</b>			
		0 -255	Open to Close			
	45		<b>BLADE 2A FINE</b>			
		0 -255	Open to Close FINE			
31	46		<b>BLADE 2B FINE</b>			
		0 -255	Open to Close			
	47		<b>BLADE 2B FINE</b>			
		0 -255	Open to Close FINE			
32	48		<b>BLADE 3A</b>			
		0 -255	Open to Close			
	49		<b>BLADE 3A FINE</b>			
		0 -255	Open to Close FINE			
33	50		<b>BLADE 3B</b>			
		0 -255	Open to Close			
	51		<b>BLADE 3B FINE</b>			
		0 -255	Open to Close FINE			
34	52		<b>BLADE 4A</b>			
		0 -255	Open to Close			
	53		<b>BLADE 4A FINE</b>			
		0 -255	Open to Close FINE			
35	54		<b>BLADE 4B</b>			
		0 -255	Open to Close			
	55		<b>BLADE 4B FINE</b>			
		0 -255	Open to Close FINE			
36	56		<b>FRAMING INDEX ROTATION</b>			
		0-127	Frame Indexing (0-360 degrees)			
		128-189	CW Frame Rotation from FAST to SLOW			
		190-193	No Rotation			
		194-255	CCW Frame rotation from FAST to SLOW			
	57		<b>FRAMING ROTATION FINE</b>			
		0 -255	Fine Control of Framing Rotation			
	58		<b>FRAMING SPEED</b>			
		0 -255	Speed MAX to MIN			



Standard	Extended	Value	Function	Hold Time	Default	Snap
			<b>FRAMING MACROS</b>			
		0-7	OFF			
		8-15	Macro1			
		16-23	Macro2			
		24-31	Macro3			
		32-39	Macro4			
		40-47	Macro5			
		48-55	Macro6			
		56-63	Macro7			
		64-71	Macro8			
		72-79	Macro9			
		80-87	Macro10			
		88-95	Macro11			
		96-103	Macro12			
		104-111	Macro13			
		112-119	Macro14			
	59	120-127	Macro15			X
		128-135	Macro16			
		136-143	Macro17			
		144-151	Macro18			
		152-159	Macro19			
		160-167	Macro20			
		168-175	Macro21			
		176-183	Macro22			
		184-191	Macro23			
		192-199	Macro24			
		200-207	Macro25			
		208-215	Macro26			
		216-223	Macro27			
		224-231	Macro28			
		232-239	Macro29			
		240-247	Macro30			
		248-255	Macro31			
			<b>PAN / TILT SPEED</b>			
		0-225	Speed MAX to MIN			
	60	226-235	Blackout by Movement			X
		236-245	Blackout by All Wheel Changing			
		246-255	NO Function			

Standard	Extended	Value	Function	Hold Time	Default	Snap			
37	61		<b>CONTROL</b>	0s					
		0-19	Color Change Normal						
		20-29	Color Change to Any Position						
		30-39	Color & Gobo Change to Any Position	3s					
		40-59	Fan Mode Low						
		60-69	Fan Mode High						
		70-79	Fan Mode Auto						
		80-84	All Motor Reset						
		85-87	Pan / Tilt Motors Reset						
		88-90	Color Motors Reset						
		91-93	NO Function						
		94-96	Focus and Zoom Motor Reset						
		97-99	Other Motor Reset						
		100-168	<b>Refresh Rate (Hz)</b>				1s		X
		100	900						
		101	910						
		102	920						
		103	930						
		104	940						
		105	950						
		106	960						
		107	970						
		108	980						
		109	990						
		110	1000						
		111	1010						
		112	1020						
		113	1030						
		114	1040						
		115	1050						
		116	1060						
		117	1070						
		118	1080						
		119	1090						
		120	1100						
		121	1110						
		122	1120						
123	1130								
124	1140								
125	1150								
126	1160								
127	1170								
128	1180								
129	1190								

Standard	Extended	Value	Function	Hold Time	Default	Snap
37	61	130	1200	1s		X
		131	1210			
		132	1220			
		133	1230			
		134	1240			
		135	1250			
		136	1260			
		137	1270			
		138	1280			
		139	1290			
		140	1300			
		141	1310			
		142	1320			
		143	1330			
		144	1340			
		145	1350			
		146	1360			
		147	1370			
		148	1380			
		149	1390			
		150	1400			
		151	1410			
		152	1420			
		153	1430			
		154	1440			
		155	1450			
		156	1460			
		157	1470			
		158	1480			
		159	1490			
		160	1500			
		161	2500			
		162	4000			
		163	5000			
		164	6000			
		165	10000			
		166	15000			
		167	20000			
		168	25000			

Standard	Extended	Value	Function	Hold Time	Default	Snap
37	61	169-180	Idle	3s		X
		181-190	PanTilt Smooth (default)			
		191-200	PanTilt Fast			
		201-210	Dimmer Curve Linear (default)			
		211-220	Dimmer Curve Square			
		221-230	Dimmer Curve Inverse Square			
		231-240	Dimmer Curve S-Curve			
		241	Internal Program 1 (Scene 1-8)			
		242	Internal Program 2 (Scene 9 -16)			
		243	Internal Program 3 (Scene17-24)			
		244	Internal Program 4 (Scene 25-32)			
		245	Internal Program 5 (Scene 33-40)			
		246	Internal Program 6 (Scene 41-48)			
		247	Internal Program 7 (Scene 49~56)			
		248-255	Idle			