

DMX Protocol

Studio Spot®575

Chan#	Parameter	Description	Value (dec.)	Value (%)	Value (hex)
1	Pan Coarse	Coarse-adjusts pan to approximately 2 degrees of desired position	0-255	0-100	00-FF
2	Pan Fine	Fine-adjusts pan position in increments less than 1 degree	0-255	0-100	00-FF
3	Tilt Coarse	Coarse-adjusts tilt to approximately 2 degrees of desired position	0-255	0-100	00-FF
4	Tilt Fine	Fine-adjusts tilt position in increments less than 1 degree	0-255	0-100	00-FF
5	Color Wheel 1 Function	Full Speeds			
		Indexed	0-31	0-12	00-1F
		Forward spin	32-47	13-18	2D-2F
		Reverse spin	48-63	16-24	30-3F
		Continuous	64-79	25-30	40-4F
		Fast scan	80-87	31-33	50-57
		Slow scan	88-95	34-37	58-5F
		Random	96-111	37-43	60-6F
		Blink-indexed	112-127	44-49	70-7F
		MSpeed Controlled			
		Indexed	128-159	50-62	80-9F
		Forward spin	160-175	63-68	A0-AF
		Reverse spin	176-191	69-74	B0-BF
		Continuous	192-207	75-80	C0-CF
		Fast scan	208-215	81-83	D0-D7
		Slow scan	216-223	84-87	D8-DF
Random	224-239	88-93	E0-EF		
Blink-indexed	240-255	94-100	F0-FF		
6	Color Wheel 1 Position <i>Color designations for standard factory-configured color wheels only. Custom colors in color wheels will change combined color results</i>	Indexed Mode			
		Color 1	0-19	0-7	0-13
		Color 1 and 2	20-39	8-15	14-27
		Color 2	40-59	16-23	28-3B
		Color 2 and 3	60-78	24-30	3C-4E
		Color 3	79-98	31-38	4F-62
		Color 3 and 4	99-118	39-46	63-76
		Color 4	119-137	47-53	77-89
		Color 4 and 5	138-157	54-61	8A-9D
		Color 5	158-177	62-69	9E-B1

Chan#	Parameter	Description	Value (dec.)	Value (%)	Value (hex)		
6	Color Wheel 1 Position, cont.	Color 5 and 6	178-196	70-76	B2-C4		
		Color 6	197-216	77-84	C5-D8		
		Color 6 and 1	217-236	85-92	D9-EC		
		Color 1	237-255	93-100	ED-FF		
		Continuously Variable Mode					
		Color 1	0	0	0		
		Color 2	43	16	2B		
		Color 3	85	33	55		
		Color 4	128	50	80		
		Color 5	170	66	AA		
		Color 6	213	83	D5		
		Color 1	255	100	FF		
		Continuously Variable Forward Spin Mode					
		Spin stop	0-3	0-1	0-3		
		Spin forward slowest	4	2	4		
		Spin forward fastest	255	100	FF		
		Continuously Variable Reverse Spin Mode					
		Spin stop	0-3	0-1	0-3		
		Spin reverse slowest	4	2	4		
		Spin reverse fastest	255	100	FF		
		Random Mode					
		Random stop	0-3	0-1	0-3		
		Random slowest	4	2	4		
		Random fastest	255	100	FF		
		Combined Mode*					
		Color 1, Open	0-6	0-2	0-6		
		Color 2, Yellow	7-13	3-5	7-0D		
		Color 3, CTO	14-20	6-7	0E-14		
		Color 4, Aqua	21-27	8-10	15-1B		
		Color 5, Pink	28-34	11-13	1C-22		
		Color 6, Magenta	35-41	14-16	23-29		
		Color 7, Cyan	42-47	17-18	2A-2F		
		Color 8, Dark Green	48-54	19-21	30-36		
		Color 9, Moonlight Blue	55-61	22-23	37-3D		
		Color 10, Primary Green	62-68	24-26	3E-44		
		Color 11, Medium Blue	69-75	27-29	45-4B		
		Color 12, Indigo	76-82	30-32	4C-52		
		Color 13, Light Cyan	83-89	33-34	53-59		
		Color 14, Dark Yellow Green	90-96	35-37	5A-60		
		Color 15, BlueGreen	97-103	38-40	61-67		
Color 16, Indigo	104-110	41-42	68-6E				
Color 17, Congo Blue	111-117	43-45	6F-75				
Color 18, Rose Indigo	118-124	46-48	76-7C				
Color 19, Indigo	125-130	49-50	7D-82				

Chan#	Parameter	Description	Value (dec.)	Value (%)	Value (hex)		
6	Color Wheel 1 Position, cont.	Color 20, Indigo	131-137	51-53	83-89		
		Color 21, Does Not Mix	138-144	54-56	8A-90		
		Color 22, Dark Indigo	145-151	57-58	91-97		
		Color 23, Does Not Mix	152-158	59-61	98-9E		
		Color 24, Indigo	159-165	61-64	9F-A5		
		Color 25, Magenta	166-172	65-67	A6-AC		
		Color 26, Orange	173-179	68-69	AD-B3		
		Color 27, Cherry Rose	180-186	70-72	B4-BA		
		Color 28, Does Not Mix	187-193	73-75	BB-C1		
		Color 29, Pink	194-200	76-78	C2-C8		
		Color 30, Broadwayway Pink	201-207	79-80	C9-CF		
		Color 31, Magenta	208-213	81-83	D0-D2		
		Color 32, Red	214-220	84-85	D3-D9		
		Color 33, Red Rose	221-227	86-88	DA-E3		
		Color 34, Does Not Mix	228-234	89-91	E4-EA		
		Color 35, Broadway Pink	235-241	92-94	EB-F1		
		Color 36, Magenta	242-248	95-96	F2-F8		
		Color 1, Open	249-255	97-100	F9-FF		
		Combined Continuous Mode*					
			Color 1, Open		0	0	0
			Color 2, Yellow		8	3	8
			Color 3, CTO		15	5	0F
			Color 4, Aqua		22	8	16
			Color 5, Pink		29	11	1D
			Color 6, Magenta		36	14	24
			Color 7, Cyan		43	16	2B
			Color 8, Dark Green		50	19	32
			Color 9, Moonlight Blue		57	22	39
			Color 10, Primary Green		64	25	40
			Color 11, Medium Blue		72	28	48
			Color 12, Indigo		79	30	4F
			Color 13, Light Cyan		86	33	56
			Color 14, Dark Yellow Green		93	36	5D
			Color 15, Blue Green		100	39	64
			Color 16, Indigo		107	41	6B
			Color 17, Congo Blue		114	44	72
			Color 18, Rose Indigo		121	47	79
			Color 19, Indigo		128	50	80
			Color 20, Indigo		136	53	88
			Color 21, Does Not Mix		143	55	8F
	Color 22, Dark Indigo		150	58	96		
	Color 23, Does Not Mix		157	61	9D		
	Color 24, Indigo		164	64	A4		
	Color 25, Magenta		171	66	AB		

Chan#	Parameter	Description	Value (dec.)	Value (%)	Value (hex)
6	Color Wheel 1 Position, cont.	Color 26, Orange	178	69	B2
		Color 27, Cherry Rose	185	72	B9
		Color 28, Does Not Mix	193	75	C1
		Color 29, Pink	200	78	C8
		Color 30, Broadwayway Pink	207	80	CF
		Color 31, Magenta	214	83	D3
		Color 32, Red	221	86	DA
		Color 33, Red Rose	228	89	E4
		Color 34, Does Not Mix	235	91	EB
		Color 35, Broadway Pink	242	94	F2
		Color 36, Magenta	249	97	F9
			Color 1, Open	255	100
7	Color Wheel 2 Function	Full Speed			
		Combined Operation	0-15	0-5	0-f
		Indexed	16-31	6-12	10-1F
		Forward spin	32-47	13-18	2D-2F
		Reverse spin	48-63	19-24	30-3F
		Continuous	64-79	25-30	40-4F
		Fast scan	80-87	31-33	50-57
		Slow scan	88-95	34-37	58-5F
		Random	96-111	37-43	60-6F
		Blink-indexed	112-127	44-49	70-7F
		MSpeed Controlled			
		Indexed	128-159	50-62	80-9F
		Forward spin	160-175	63-68	A0-AF
		Reverse spin	176-191	69-74	B0-BF
		Continuous	192-207	75-80	C0-CF
		Fast scan	208-215	81-83	D0-D7
		Slow scan	216-223	84-87	D8-DF
		Random	224-239	88-93	E0-EF
Blink-indexed	240-255	94-100	F0-FF		
8	Color Wheel 2 Position	Indexed Mode			
		Color 1	0-19	0-7	0-13
		Color 1 and 2	20-39	8-15	14-27
		Color 2	40-59	16-23	28-3B
		Color 2 and 3	60-78	24-30	3C-4E
		Color 3	79-98	31-38	4F-62
		Color 3 and 4	99-118	39-46	63-76
		Color 4	119-137	47-53	77-89
		Color 4 and 5	138-157	54-61	8A-9D
		Color 5	158-177	62-69	9E-B1
		Color 5 and 6	178-196	70-76	B2-C4
		Color 6	197-216	77-84	C5-D8
		Color 6 and 1	217-236	85-92	D9-EC
		Color 1	237-255	93-100	ED-FF

Chan#	Parameter	Description	Value (dec.)	Value (%)	Value (hex)
8	Color Wheel 2 Position	Continuously Variable Mode			
		Color 1	0	0	0
		Color 2	43	16	2B
		Color 3	85	33	55
		Color 4	128	50	80
		Color 5	170	66	AA
		Color 6	213	83	D5
		Color 1	255	100	FF
		Continuously Variable Forward Spin Mode			
		Spin stop	0-3	0-1	0-3
		Spin forward slowest	4	2	4
		Spin forward fastest	255	100	FF
		Continuously Variable Reverse Spin Mode			
		Spin stop	0-3	0-1	0-3
		Spin reverse slowest	4	2	4
		Spin reverse fastest	255	100	FF
		Random Mode			
Random stop	0-3	0-1	0-3		
Random slowest	4	2	4		
Random fastest	255	100	FF		
9	Litho Wheel 1 Function	Full Speed			
		Indexed	0-15	0-5	0-f
		Forward rotate	16-31	6-12	10-1F
		Reverse rotate	32-47	13-18	2D-2F
		Wheel Spin	48-63	16-24	30-3F
		Scan	64-79	25-30	40-4F
		Random	80-95	31-37	50-6F
		Blink wheel (Indexed)	96-111	38-43	60-6F
		Blink aperture (Indexed)	112-127	44-49	70-7F
		MSpeed Controlled			
		Indexed	128-143	50-55	80-8F
		Forward rotate	144-159	56-62	90-9F
		Reverse rotate	160-175	63-68	A0-AF
		Wheel Spin	176-191	69-74	B0-BF
		Scan	192-207	75-80	C0-CF
		Random	208-223	81-83	D0-D7
		Blink wheel (Indexed)	224-239	88-93	E0-EF
Blink aperture (Indexed)	240-255	94-100	F0-FF		
10	Litho Wheel 1 Position	Position 0	0-36	0-14	0-24
		Position 1	37-73	15-28	25-49
		Position 2	74-109	29-42	4A-6D
		Position 3	110-146	43-57	6E-92
		Position 4	147-182	58-71	93-B6
		Position 5	183-219	72-85	B7-D8
		Position 6	220-255	86-100	D9-FF

Chan#	Parameter	Description	Value (dec.)	Value (%)	Value (hex)
11	Litho Wheel 1 Coarse Rotation	Indexed Mode	0-255	0-100	00-FF
		Variable Forward Rotate Mode			
		Rotate stop	0-3	0-1	0-3
		Rotate forward slowest	4-255	2-100	04-FF
		Variable Reverse Rotate Mode			
		Reotate stop	0-3	0-1	0-3
		Reverse rotate slowest to fastest	4-255	2-100	04-FF
		Continuously Variable Wheel Spin Mode			
		Forward spin slowest to fastest	0-127	0-49	0-7F
		Reverse spin, slowest to fastest	128-255	50-100	80-FF
		Scan Mode			
		Scan slowest to fastest	0-255	0-100	00-FF
		Random Mode			
		Random stop	0-3	0-1	0-3
Random slowest to fastest	4-255	2-100	04-FF		
12	Litho Wheel 1 Fine Rotation	Indexed Mode	0-255	0-100	00-FF
13	Litho Wheel 2 Function	Full Speed			
		Indexed	0-15	0-5	0-f
		Forward rotate	16-31	6-12	10-1F
		Reverse rotate	32-47	13-18	2D-2F
		Wheel Spin	48-63	16-24	30-3F
		Scan	64-79	25-30	40-4F
		Random	80-95	31-37	50-6F
		Blink wheel (Indexed)	96-111	38-43	60-6F
		Blink aperture (Indexed)	112-127	44-49	70-7F
		MSpeed Controlled			
		Indexed	128-143	50-55	80-8F
		Forward rotate	144-159	56-62	90-9F
		Reverse rotate	160-175	63-68	A0-AF
		Wheel Spin	176-191	69-74	B0-BF
		Scan	192-207	75-80	C0-CF
		Random	208-223	81-83	D0-D7
Blink wheel (Indexed)	224-239	88-93	E0-EF		
Blink aperture (Indexed)	240-255	94-100	F0-FF		
14	Litho Wheel 2 Position	Position 0	0-36	0-14	0-24
		Position 1	37-73	15-28	25-49
		Position 2	74-109	29-42	4A-6D
		Position 3	110-146	43-57	6E-92
		Position 4	147-182	58-71	93-B6
		Position 5	183-219	72-85	B7-D8
		Position 6	220-255	86-100	D9-FF

Chan#	Parameter	Description	Value (dec.)	Value (%)	Value (hex)
15	Litho Wheel 2 Coarse Rotation	Indexed Mode	0-255	0-100	00-FF
		Variable Forward Rotate Mode			
		Rotate stop	0-3	0-1	0-3
		Rotate forward slowest	4-255	2-100	04-FF
		Variable Reverse Rotate Mode			
		Reotate stop	0-3	0-1	0-3
		Reverse rotate slowest to fastest	4-255	2-100	04-FF
		Continuously Variable Wheel Spin Mode			
		Forward spin slowest to fastest	0-127	0-49	0-7F
		Reverse spin, slowest to fastest	128-255	50-100	80-FF
		Scan Mode			
		Scan slowest to fastest	0-255	0-100	00-FF
		Random Mode			
		Random stop	0-3	0-1	0-3
Random slowest to fastest	4-255	2-100	04-FF		
16	Litho Wheel 2 Fine Rotation	Indexed Mode	0-255	0-100	00-FF
17	Frost	No frost	0	0	0
		Variable frost	1-127	1-49	1-7F
		Full frost	128-143	50-55	80-8F
		Periodic frost strobes	144-159	56-62	90-9F
		Random frost strobes	160-175	63-68	A0-AF
		Ramp open/ snap shut	176-191	69-74	B0-BF
		Snap open/ ramp shut	192-207	75-80	C0-CF
		Random ramp/ snap	208-223	81-87	D0-DF
		Random snap/ ramp	224-239	88-93	E0-EF
		Open	240-255	94-100	FO-FF
18	Focus	Focus image from closer to farther	0-255	0-100	0-FF
19	Iris	Closed	0	0	0
		Variable	1-127	1-49	1-7F
		Open	128-143	50-55	80-8F
		Periodic strobes	144-159	56-62	90-9F
		Random strobes	160-175	63-68	A0-AF
		Ramp open/ snap shut	176-191	69-74	B0-BF
		Snap open/ ramp shut	192-207	75-80	C0-CF
		Random ramp/ snap	208-223	81-87	D0-DF
		Random snap/ ramp	224-239	88-93	E0-EF
		Open	240-255	94-100	FO-FF
20	Shutter	Closed	0-31	0-12	0-1F
		Periodic strobes	32-63	13-24	20-3F
		Random strobes	64-95	25-37	40-5F
		Ramp open/ snap shut	96-127	38-49	60-7F
		Snap open/ ramp shut	128-159	50-62	80-9F
		Random ramp open/ snap shut	160-191	63-74	A0-BF
		Random snap open/ ramp shut	192-223	75-87	C0-DF
		Open	224-255	88-100	E0-FF
21	Dim	Closed to open	0-255	0-100	00-FF
22	MSpeed (See Appendix B)	Controller Crossfade	0-3	0-1	0-3
		Longest to shortest MSpeed	4-255	2-100	4-FF

Chan#	Parameter	Description	Value (dec.)	Value (%)	Value (hex)
23	Factory Macros	No macro	0-7	0-2	0-7
		Macro 1	8-15	3-5	8-0F
		Macro 2	16-23	6-9	10-17
		Macro 3	24-31	10-12	18-1F
		Macro 4	32-39	13-15	20-27
		Macro 5	40-47	16-18	28-2F
		Macro 6	48-55	19-21	30-37
		Macro 7	56-63	22-24	38-3F
		Macro 8	64-71	25-27	40-47
		Reserved	72-215	28-84	48-D4
		Variable speed random macros	216-247	85-96	D5-F7
		No macro	248-255	97-100	F8-FF
24	Control	Safe	0-9	0-3	0-9
		Disable MSpeed for pan and tilt	10-19	4-7	0A-13
		Display off	20-28	8-11	14-1C
		Display dim	30-38	12-14	1E-26
		Display bright	40-48	15-18	28-30
		Home	60-68	23-26	3C-44
		Lamp on	80-88	31-34	50-58
		Lamp off	90-98	35-38	5A-62
		Shutdown	120-130	46-50	78-82
		Reserved	131-255	51-100	83-FF