

ETC Reference Guide

High End Systems Hyperstar DMX Channel Map

Hyperstar DMX Channel Map

Standard Protocol	
Channel	Function
1	Pan Coarse
2	Pan Fine
3	Tilt Coarse
4	Tilt Fine
5	Color Mode
6	Cyan
7	Magenta
8	Yellow
9	CTO
10	Color Wheel Mode
11	Color Wheel
12	Rotating Gobo Wheel 1 Mode
13	Rotating Gobo Wheel 1
14	Rotating Gobo 1 Mode
15	Rotating Gobo 1 Coarse
16	Rotating Gobo 1 Fine
17	Gobo Wheel 2 Mode
18	Gobo Wheel 2
19	Animation Insertion
20	Animation Rotate
21	Prism 1 Mode
22	Prism 1 Rotate Coarse
23	Prism 1 Rotate Fine
24	Prism 2 Mode
25	Prism 2 Rotate Coarse
26	Prism 2 Rotate Fine
27	Diffusion 1
28	Diffusion 2
29	Focus Coarse
30	Focus Fine
31	Zoom Coarse
32	Zoom Fine
33	Strobe Mode
34	Strobe
35	Dimmer Coarse
36	Dimmer Fine
37	mSpeed
38	Control
39	Fan

Trifusion Frost Protocol	
Channel	Function
1	Pan Coarse
2	Pan Fine
3	Tilt Coarse
4	Tilt Fine
5	Color Mode
6	Cyan
7	Magenta
8	Yellow
9	CTO
10	Color Wheel Mode
11	Color Wheel
12	Rotating Gobo Wheel 1 Mode
13	Rotating Gobo Wheel 1
14	Rotating Gobo 1 Mode
15	Rotating Gobo 1 Coarse
16	Rotating Gobo 1 Fine
17	Gobo Wheel 2 Mode
18	Gobo Wheel 2
19	Animation Insertion
20	Animation Rotate
21	Prism 1 Mode
22	Prism 1 Rotate Coarse
23	Prism 1 Rotate Fine
24	Reserved
25	Diffusion 1
26	Reserved
27	Diffusion 2
28	Diffusion 3
29	Focus Coarse
30	Focus Fine
31	Zoom Coarse
32	Zoom Fine
33	Strobe Mode
34	Strobe
35	Dimmer Coarse
36	Dimmer Fine
37	mSpeed
38	Control
39	Fan



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Hyperstar DMX Channel Map

Standard Protocol

Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
1/2	Pan (Coarse/Fine)	See note 6 on page 14	0	65535	0%	100%	00h	FFFFh	32767	
3/4	Tilt (Coarse/Fine)	See note 6 on page 14	0	65535	0%	100%	00h	FFFFh	32767	
5	Color Mode	Full Speed Control							0	
		Pure Mix	0	31	0%	12%	00h	1Fh		
		Cycle	32	47	13%	18%	20h	2Fh		
		Random	48	63	19%	25%	30h	3Fh		
		Pure Mix Fast	64	79	25%	31%	40h	4Fh		
		Cycle Fast	80	95	31%	37%	50h	5Fh		
		Random Fast	96	111	38%	44%	60h	6Fh		
		Reserved (see note 5 on page 14)	112	127	44%	50%	70h	7Fh		
		mSpeed Control								
		Pure Mix	128	159	50%	62%	80h	9Fh		
		Cycle	160	175	63%	69%	A0h	AFh		
		Random	176	191	69%	75%	B0h	BFh		
		Pure Mix Fast	192	207	75%	81%	C0h	CFh		
		Cycle Fast	208	223	82%	87%	D0h	DFh		
Random Fast	224	239	88%	94%	E0h	EFh				
Reserved (see note 5 on page 14)	240	255	94%	100%	F0h	FFh				
6 7 8	Cyan Magenta Yellow	Pure Mix							255	
		Full Saturation to Open	0	255	0%	100%	00h	FFh		
		Cycle & Random. Scan speed controlled by Cyan channel.								
		Slow to Fast	0	255	0%	100%	00h	FFh		
9	CTO	Full Saturation to Open	0	255	0%	100%	00h	FFh	255	
10	Color Wheel Mode	Full Speed Control							48	
		Indexed (see note 1 on page 14)	0	15	0%	6%	00h	0Fh		
		Forward Spin	16	31	6%	12%	10h	1Fh		
		Reverse Spin	32	47	13%	18%	20h	2Fh		
		Continuous (see note 1 on page 14)	48	63	19%	25%	30h	3Fh		
		Scan	64	79	25%	31%	40h	4Fh		
		Random	80	95	31%	37%	50h	5Fh		
		Reserved (see note 5 on page 14)	96	127	38%	50%	60h	7Fh		
		mSpeed Control								
		Indexed (see note 1 on page 14)	128	143	50%	56%	80h	8Fh		
		Forward Spin	144	159	56%	62%	90h	9Fh		
		Reverse Spin	160	175	63%	69%	A0h	AFh		
		Continuous (see note 1 on page 14)	176	191	69%	75%	B0h	BFh		
		Scan	192	207	75%	81%	C0h	CFh		
Random	208	239	82%	94%	D0h	EFh				
Reserved (see note 5 on page 14)	240	255	94%	100%	F0h	FFh				

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Hyperstar DMX Channel Map

Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
11	Color Wheel	Indexed								
		Open (White)	0	10	0%	4%	00h	0Ah	0	
		Open/Red	11	21	4%	8%	0Bh	15h		
		Red	22	32	9%	13%	16h	20h		
		Red/Blue	33	43	13%	17%	21h	2Bh		
		Blue	44	54	17%	21%	2Ch	36h		
		Blue/Green	55	65	22%	25%	37h	41h		
		Green	66	76	26%	30%	42h	4Ch		
		Green/Yellow	77	87	30%	34%	4Dh	57h		
		Yellow	88	98	35%	38%	58h	62h		
		Yellow/Purple	99	109	39%	43%	63h	6Dh		
		Purple	110	120	43%	47%	6Eh	78h		
		Purple/TM30	121	131	47%	51%	79h	83h		
		TM30	132	142	52%	56%	84h	8Eh		
		TM30/Lavender	143	153	56%	60%	8Fh	99h		
		Lavender	154	164	60%	64%	9Ah	A4h		
		Lavender/4400 K	165	175	65%	69%	A5h	AFh		
		4400 K	176	186	69%	73%	B0h	BAh		
		4400 K/3200 K	187	197	73%	77%	BBh	C5h		
		3200 K	198	208	78%	82%	C6h	D0h		
		3200 K/Dark Blue	209	219	82%	86%	D1h	DBh		
		Dark Blue	220	230	86%	90%	DCh	E6h		
		Dark Blue/Open	231	241	91%	95%	E7h	F1h		
		Open (White)	242	255	95%	100%	F2h	FFh		
		Scan								
		Open/Red, Slow to Fast	0	21	0%	8%	00h	15h		
		Red/Blue, Slow to Fast	22	43	9%	17%	16h	2Bh		
		Blue/Green, Slow to Fast	44	65	17%	25%	2Ch	41h		
		Green/Yellow, Slow to Fast	66	87	26%	34%	42h	57h		
		Yellow/Purple, Slow to Fast	88	109	35%	43%	58h	6Dh		
		Purple/TM30, Slow to Fast	110	131	43%	51%	6Eh	83h		
		TM30/Lavender, Slow to Fast	132	153	52%	60%	84h	99h		
		Lavender/4400 K, Slow to Fast	154	175	60%	69%	9Ah	AFh		
		4400 K/3200 K, Slow to Fast	176	197	69%	77%	B0h	C5h		
		3200 K/Dark Blue, Slow to Fast	198	219	78%	86%	C6h	DBh		
		Dark Blue/Open, Slow to Fast	220	255	86%	100%	DCh	FFh		
		Spin & Random								
		Stop	0	0	0%	0%	00h	00h		
		Slow to Fast	1	255	0%	100%	01h	FFh		
		Continuous								
		Positioning from 0–360 degrees	0	255	0%	100%	00h	FFh		

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Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
12	Rotating Gobo Wheel 1 Mode	Full Speed Control								0
		Indexed	0	15	0%	6%	00h	0Fh		
		Forward Wheel Spin	16	31	6%	12%	10h	1Fh		
		Reverse Wheel Spin	32	47	13%	18%	20h	2Fh		
		Scan	48	63	19%	25%	30h	3Fh		
		Random	64	79	25%	31%	40h	4Fh		
		Reserved (see note 5 on page 14)	80	127	31%	50%	50h	7Fh		
		mSpeed Control								
		Indexed	128	143	50%	56%	80h	8Fh		
		Forward Wheel Spin	144	159	56%	62%	90h	9Fh		
		Reverse Wheel Spin	160	175	63%	69%	A0h	AFh		
		Scan	176	191	69%	75%	B0h	BFh		
		Random	192	207	75%	81%	C0h	CFh		
		Reserved (see note 5 on page 14)	208	255	82%	100%	D0h	FFh		
13	Rotating Gobo Wheel 1 (see Hyperstar Gobos on page 15)	Indexed & Scan								0
		Open	0	15	0%	6%	00h	0Fh		
		Gobo 1 - Bar	16	31	6%	12%	10h	1Fh		
		Gobo 2 - Starvolver	32	47	13%	18%	20h	2Fh		
		Gobo 3 - Fracked	48	63	19%	25%	30h	3Fh		
		Gobo 4 - Broken Tunnel	64	79	25%	31%	40h	4Fh		
		Gobo 5 - Seashell	80	95	31%	37%	50h	5Fh		
		Gobo 6 - Glacial	96	111	38%	44%	60h	6Fh		
		Gobo 7 - Shower	112	127	44%	50%	70h	7Fh		
		Gobo 8 - Ice	128	143	50%	56%	80h	8Fh		
		Gobo 9 - Branch Out	144	159	56%	62%	90h	9Fh		
		Open	160	255	63%	100%	A0h	FFh		
		Spin & Random								
		Stop	0	3	0%	1%	00h	03h		
Slow to fast	4	255	2%	100%	04h	FFh				
14	Rotating Gobo 1 Mode	Continuous	0	15	0%	6%	00h	0Fh	0	
		Forward Spin	16	31	6%	12%	10h	1Fh		
		Reverse Spin	32	47	13%	18%	20h	2Fh		
		Forward Animate	48	63	19%	25%	30h	3Fh		
		Reverse Animate	64	79	25%	31%	40h	4Fh		
		Reserved (see note 5 on page 14)	80	255	31%	100%	50h	FFh		
15/16	Rotating Gobo 1 (Coarse/Fine)	Continuous								0
		0–359 degrees	0	65535	0%	100%	00h	FFFFh		
		Spin & Animate								
		Stop	0	3	0%	0%	00h	03h		
Slow to Fast	4	255	2%	0%	04h	FFh				

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Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
17	Fixed Gobo Wheel 2 Mode	Full Speed Control								0
		Indexed	0	15	0%	6%	00h	0Fh		
		Forward Spin	16	31	6%	12%	10h	1Fh		
		Reverse Spin	32	47	13%	18%	20h	2Fh		
		Scan	48	63	19%	25%	30h	3Fh		
		Random	64	79	25%	31%	40h	4Fh		
		Reserved (see note 5 on page 14)	80	127	31%	50%	50h	7Fh		
		mSpeed Control								
		Indexed	128	143	50%	56%	80h	8Fh		
		Forward Spin	144	159	56%	62%	90h	9Fh		
		Reverse Spin	160	175	63%	69%	A0h	AFh		
		Scan	176	191	69%	75%	B0h	BFh		
		Random	192	207	75%	81%	C0h	CFh		
		Reserved (see note 5 on page 14)	208	255	82%	100%	D0h	FFh		
		18	Fixed Gobo Wheel 2 (see Hyperstar Gobos on page 15)	Indexed						
Open	0			19	0%	7%	00h	13h		
Gobo 1 - Shattered	20			39	8%	15%	14h	27h		
Gobo 2 - MiscSpots	40			59	16%	23%	28h	3Bh		
Gobo 3 - Light Organic	60			79	24%	31%	3Ch	4Fh		
Gobo 4 - Thatch	80			99	31%	39%	50h	63h		
Gobo 5 - Across	100			119	39%	47%	64h	77h		
Gobo 6 - Triangles	120			139	47%	55%	78h	8Bh		
Gobo 7 - Daisy	140			159	55%	62%	8Ch	9Fh		
Gobo 8 - Small Aperture	160			179	63%	70%	A0h	B3h		
Gobo 9 - 25% Aperture	180			199	71%	78%	B4h	C7h		
Gobo 10 - 50% Aperture	200			219	78%	86%	C8h	DBh		
Gobo 11 - 75% Aperture	220			239	86%	94%	DCh	EFh		
Open	240			255	94%	100%	F0h	FFh		
Spin & Random										
Stop	0			3	0%	1%	00h	03h		
Slow to Fast	4			255	2%	100%	04h	FFh		
Scan										
Open/Shattered	0			21	0%	8%	00h	15h		
Shattered/MiscSpots	22			43	9%	17%	16h	2Bh		
MiscSpots/Light Organic	44			65	17%	25%	2Ch	41h		
Light Organic/Thatch	66			87	26%	34%	42h	57h		
Thatch/Across	88			109	35%	43%	58h	6Dh		
Across/Triangles	110			131	43%	51%	6Eh	83h		
Triangles/Daisy	132			153	52%	60%	84h	99h		
Daisy/Small Aperture	154			175	60%	69%	9Ah	AFh		
Small Aperture/25% Aperture	176			197	69%	77%	B0h	C5h		
25% Aperture/50% Aperture	198			219	78%	86%	C6h	DBh		
50% Aperture/75% Aperture	220			241	86%	95%	DCh	F1h		
75% Aperture/Open	242			255	95%	100%	F2h	FFh		
19	Animation Insertion	Removed to Inserted	0	255	0%	100%	00h	FFh	0	

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Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default
20	Animation Rotate	Forward Spin, Stop to Fast	0	63	0%	25%	00h	3Fh	0
		Reverse Spin, Stop to Fast	64	127	25%	50%	40h	7Fh	
		Forward Animate, Stop to Fast	128	191	50%	75%	80h	BFh	
		Reverse Animate, Stop to Fast	192	255	75%	100%	C0h	FFh	
21	Prism 1 Mode (see note 4 on page 14)	Removed	0	15	0%	6%	00h	0Fh	0
		Continuous	16	31	6%	12%	10h	1Fh	
		Forward Spin	32	47	13%	18%	20h	2Fh	
		Reverse Spin	48	63	19%	25%	30h	3Fh	
		Forward Animate	64	79	25%	31%	40h	4Fh	
		Reverse Animate	80	95	31%	37%	50h	5Fh	
		Reserved (see note 5 on page 14)	96	255	38%	100%	60h	FFh	
22/23	Prism 1 (Coarse/Fine)	Continuous							32767
		0–359 degrees	0	65535	0%	100%	00h	FFFFh	
		Spin & Animate							
		Stop	0	1027	0%	2%	00h	0403h	
		Slow to Fast	1028	65535	2%	100%	0404h	FFFFh	
24	Prism 2 Mode (see note 4 on page 14)	Removed	0	15	0%	6%	00h	0Fh	0
		Continuous	16	31	6%	12%	10h	1Fh	
		Forward Spin	32	47	13%	18%	20h	2Fh	
		Reverse Spin	48	63	19%	25%	30h	3Fh	
		Forward Animate	64	79	25%	31%	40h	4Fh	
		Reverse Animate	80	95	31%	37%	50h	5Fh	
		Reserved (see note 5 on page 14)	96	255	38%	100%	60h	FFh	
25/26	Prism 2 (Coarse/Fine)	Continuous							32767
		0–359 degrees	0	65535	0%	100%	00h	FFFFh	
		Spin & Animate							
		Stop	0	1027	0%	2%	00h	0403h	
		Slow to Fast	1028	65535	2%	100%	0404h	FFFFh	
27	Diffusion 1	Removed	0	0	0%	0%	00h	00h	0
		Hard to Soft Edge	1	255	0%	100%	01h	FFh	
28	Diffusion 2	Removed	0	0	0%	0%	00h	00h	0
		Hard to Soft Edge	1	255	0%	100%	01h	FFh	
29/30	Focus (Coarse/Fine)	Focus	0	65535	0%	100%	00h	FFFFh	32767
31/32	Zoom (Coarse/Fine)	Zoom	0	65535	0%	100%	00h	FFFFh	32767
33	Strobe Mode	Normal	0	31	0%	12%	00h	1Fh	0
		Random	32	63	13%	25%	20h	3Fh	
		Synchronous Random (see note 2 on page 14)	64	95	25%	37%	40h	5Fh	
		Reserved (see note 5 on page 14)	96	255	38%	100%	60h	FFh	
34	Strobe	Close	0	23	0%	9%	00h	17h	255
		Slow to Fast	24	229	9%	90%	18h	E5h	
		Open	230	255	90%	100%	E6h	FFh	
35/36	Dimmer (Coarse/Fine)	Off to Full	0	65535	0%	100%	00h	FFFFh	0

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Hyperstar DMX Channel Map

Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
37	Mspeed	Not Enabled	0	3	0%	1%	00h	03h	0	
		Longest to Shortest	4	255	2%	100%	04h	FFh		
38	Control	No hold time requirement for the following functions (see note 7 on page 14):								0
		Idle	0	15	0%	6%	00h	0Fh		
		Pan and Tilt mSpeed Off	16	19	6%	7%	10h	13h		
		Reserved (see note 5 on page 14)	20	31	8%	12%	14h	1Fh		
		Hold time requirement for the following functions:								
		Display Off (3 s)	32	47	13%	18%	20h	2Fh		
		Display On (3 s)	48	63	19%	25%	30h	3Fh		
		Reserved (see note 5 on page 14)	64	79	25%	31%	40h	4Fh		
		Home All (3 s)	80	95	31%	37%	50h	5Fh		
		Shutdown (9 s)	96	111	38%	44%	60h	6Fh		
		Disable Pan/Tilt Motors (3 s)	112	127	44%	50%	70h	7Fh		
		Dimming Mode - 2.4 kHz (3 s)	128	143	50%	56%	80h	8Fh		
Dimming Mode - 16 kHz (3 s)	144	159	56%	62%	90h	9Fh				
Reserved (see note 5 on page 14)	160	255	63%	100%	A0h	FFh				
39	Fan (see note 3 on page 14)	Idle	0	15	0%	6%	00h	0Fh	0	
		Slow to fast	16	207	6%	81%	10h	CFh		
		Auto	208	223	82%	87%	D0h	DFh		
		Studio	224	239	88%	94%	E0h	EFh		
		Reserved	240	255	94%	100%	F0h	FFh		

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Hyperstar DMX Channel Map

Trifusion Frost Protocol

Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
1/2	Pan (Coarse/Fine)	See note 6 on page 14	0	65535	0%	100%	00h	FFFFh	32767	
3/4	Tilt (Coarse/Fine)	See note 6 on page 14	0	65535	0%	100%	00h	FFFFh	32767	
5	Color Mode	Full Speed Control							0	
		Pure Mix	0	31	0%	12%	00h	1Fh		
		Cycle	32	47	13%	18%	20h	2Fh		
		Random	48	63	19%	25%	30h	3Fh		
		Pure Mix Fast	64	79	25%	31%	40h	4Fh		
		Cycle Fast	80	95	31%	37%	50h	5Fh		
		Random Fast	96	111	38%	44%	60h	6Fh		
		Reserved (see note 5 on page 14)	112	127	44%	50%	70h	7Fh		
		mSpeed Control								
		Pure Mix	128	159	50%	62%	80h	9Fh		
		Cycle	160	175	63%	69%	A0h	AFh		
		Random	176	191	69%	75%	B0h	BFh		
		Pure Mix Fast	192	207	75%	81%	C0h	CFh		
		Cycle Fast	208	223	82%	87%	D0h	DFh		
		Random Fast	224	239	88%	94%	E0h	EFh		
Reserved (see note 5 on page 14)	240	255	94%	100%	F0h	FFh				
6 7 8	Cyan Magenta Yellow	Pure Mix							255	
		Full Saturation to Open	0	255	0%	100%	00h	FFh		
		Cycle & Random. Scan speed controlled by Cyan channel.								
		Slow to Fast	0	255	0%	100%	00h	FFh		
9	CTO	Full Saturation to Open	0	255	0%	100%	00h	FFh	255	
10	Color Wheel Mode	Full Speed Control							48	
		Indexed (see note 1 on page 14)	0	15	0%	6%	00h	0Fh		
		Forward Spin	16	31	6%	12%	10h	1Fh		
		Reverse Spin	32	47	13%	18%	20h	2Fh		
		Continuous (see note 1 on page 14)	48	63	19%	25%	30h	3Fh		
		Scan	64	79	25%	31%	40h	4Fh		
		Random	80	95	31%	37%	50h	5Fh		
		Reserved (see note 5 on page 14)	96	127	38%	50%	60h	7Fh		
		mSpeed Control								
		Indexed (see note 1 on page 14)	128	143	50%	56%	80h	8Fh		
		Forward Spin	144	159	56%	62%	90h	9Fh		
		Reverse Spin	160	175	63%	69%	A0h	AFh		
		Continuous (see note 1 on page 14)	176	191	69%	75%	B0h	BFh		
		Scan	192	207	75%	81%	C0h	CFh		
		Random	208	239	82%	94%	D0h	EFh		
Reserved (see note 5 on page 14)	240	255	94%	100%	F0h	FFh				

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Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
11	Color Wheel	Indexed								
		Open (White)	0	10	0%	4%	00h	0Ah	0	
		Open/Red	11	21	4%	8%	0Bh	15h		
		Red	22	32	9%	13%	16h	20h		
		Red/Blue	33	43	13%	17%	21h	2Bh		
		Blue	44	54	17%	21%	2Ch	36h		
		Blue/Green	55	65	22%	25%	37h	41h		
		Green	66	76	26%	30%	42h	4Ch		
		Green/Yellow	77	87	30%	34%	4Dh	57h		
		Yellow	88	98	35%	38%	58h	62h		
		Yellow/Purple	99	109	39%	43%	63h	6Dh		
		Purple	110	120	43%	47%	6Eh	78h		
		Purple/TM30	121	131	47%	51%	79h	83h		
		TM30	132	142	52%	56%	84h	8Eh		
		TM30/Lavender	143	153	56%	60%	8Fh	99h		
		Lavender	154	164	60%	64%	9Ah	A4h		
		Lavender/4400 K	165	175	65%	69%	A5h	AFh		
		4400 K	176	186	69%	73%	B0h	BAh		
		4400 K/3200 K	187	197	73%	77%	BBh	C5h		
		3200 K	198	208	78%	82%	C6h	D0h		
		3200 K/Dark Blue	209	219	82%	86%	D1h	DBh		
		Dark Blue	220	230	86%	90%	DCh	E6h		
		Dark Blue/Open	231	241	91%	95%	E7h	F1h		
		Open (White)	242	255	95%	100%	F2h	FFh		
		Scan								
		Open/Red, Slow to Fast	0	21	0%	8%	00h	15h		
		Red/Blue, Slow to Fast	22	43	9%	17%	16h	2Bh		
		Blue/Green, Slow to Fast	44	65	17%	25%	2Ch	41h		
		Green/Yellow, Slow to Fast	66	87	26%	34%	42h	57h		
		Yellow/Purple, Slow to Fast	88	109	35%	43%	58h	6Dh		
		Purple/TM30, Slow to Fast	110	131	43%	51%	6Eh	83h		
		TM30/Lavender, Slow to Fast	132	153	52%	60%	84h	99h		
		Lavender/4400 K, Slow to Fast	154	175	60%	69%	9Ah	AFh		
		4400 K/3200 K, Slow to Fast	176	197	69%	77%	B0h	C5h		
		3200 K/Dark Blue, Slow to Fast	198	219	78%	86%	C6h	DBh		
		Dark Blue/Open, Slow to Fast	220	255	86%	100%	DCh	FFh		
		Spin & Random								
		Stop	0	0	0%	0%	00h	00h		
		Slow to Fast	1	255	0%	100%	01h	FFh		
		Continuous								
		Positioning from 0–360 degrees	0	255	0%	100%	00h	FFh		

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Hyperstar DMX Channel Map

Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
12	Rotating Gobo Wheel 1 Mode	Full Speed Control								0
		Indexed	0	15	0%	6%	00h	0Fh		
		Forward Wheel Spin	16	31	6%	12%	10h	1Fh		
		Reverse Wheel Spin	32	47	13%	18%	20h	2Fh		
		Scan	48	63	19%	25%	30h	3Fh		
		Random	64	79	25%	31%	40h	4Fh		
		Reserved (see note 5 on page 14)	80	127	31%	50%	50h	7Fh		
		mSpeed Control								
		Indexed	128	143	50%	56%	80h	8Fh		
		Forward Wheel Spin	144	159	56%	62%	90h	9Fh		
		Reverse Wheel Spin	160	175	63%	69%	A0h	AFh		
		Scan	176	191	69%	75%	B0h	BFh		
		Random	192	207	75%	81%	C0h	CFh		
		Reserved (see note 5 on page 14)	208	255	82%	100%	D0h	FFh		
13	Rotating Gobo Wheel 1 (see Hyperstar Gobos on page 15)	Indexed & Scan								0
		Open	0	15	0%	6%	00h	0Fh		
		Gobo 1 - Bar	16	31	6%	12%	10h	1Fh		
		Gobo 2 - Starvolver	32	47	13%	18%	20h	2Fh		
		Gobo 3 - Fracked	48	63	19%	25%	30h	3Fh		
		Gobo 4 - Broken Tunnel	64	79	25%	31%	40h	4Fh		
		Gobo 5 - Seashell	80	95	31%	37%	50h	5Fh		
		Gobo 6 - Glacial	96	111	38%	44%	60h	6Fh		
		Gobo 7 - Shower	112	127	44%	50%	70h	7Fh		
		Gobo 8 - Ice	128	143	50%	56%	80h	8Fh		
		Gobo 9 - Branch Out	144	159	56%	62%	90h	9Fh		
		Open	160	255	63%	100%	A0h	FFh		
		Spin & Random								
		Stop	0	3	0%	1%	00h	03h		
Slow to Fast	4	255	2%	100%	04h	FFh				
14	Rotating Gobo 1 Mode	Continuous	0	15	0%	6%	00h	0Fh	0	
		Forward Spin	16	31	6%	12%	10h	1Fh		
		Reverse Spin	32	47	13%	18%	20h	2Fh		
		Forward Animate	48	63	19%	25%	30h	3Fh		
		Reverse Animate	64	79	25%	31%	40h	4Fh		
		Reserved (see note 5 on page 14)	80	255	31%	100%	50h	FFh		
15/16	Rotating Gobo 1 (Coarse/Fine)	Continuous								0
		0–359 degrees	0	65535	0%	100%	00h	FFFFh		
		Spin & Animate								
		Stop	0	3	0%	0%	00h	03h		
Slow to Fast	4	255	2%	0%	04h	FFh				

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Hyperstar DMX Channel Map

Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
17	Fixed Gobo Wheel 2 Mode	Full Speed Control								
		Indexed	0	15	0%	6%	00h	0Fh	0	
		Forward Spin	16	31	6%	12%	10h	1Fh		
		Reverse Spin	32	47	13%	18%	20h	2Fh		
		Scan	48	63	19%	25%	30h	3Fh		
		Random	64	79	25%	31%	40h	4Fh		
		Reserved (see note 5 on page 14)	80	127	31%	50%	50h	7Fh		
		mSpeed Control								
		Indexed	128	143	50%	56%	80h	8Fh		
		Forward Spin	144	159	56%	62%	90h	9Fh		
		Reverse Spin	160	175	63%	69%	A0h	AFh		
		Scan	176	191	69%	75%	B0h	BFh		
		Random	192	207	75%	81%	C0h	CFh		
		Reserved (see note 5 on page 14)	208	255	82%	100%	D0h	FFh		
		18	Fixed Gobo Wheel 2 (see Hyperstar Gobos on page 15)	Indexed						
Open	0			19	0%	7%	00h	13h		
Gobo 1 - Shattered	20			39	8%	15%	14h	27h		
Gobo 2 - MiscSpots	40			59	16%	23%	28h	3Bh		
Gobo 3 - Light Organic	60			79	24%	31%	3Ch	4Fh		
Gobo 4 - Thatch	80			99	31%	39%	50h	63h		
Gobo 5 - Across	100			119	39%	47%	64h	77h		
Gobo 6 - Triangles	120			139	47%	55%	78h	8Bh		
Gobo 7 - Daisy	140			159	55%	62%	8Ch	9Fh		
Gobo 8 - Small Aperture	160			179	63%	70%	A0h	B3h		
Gobo 9 - 25% Aperture	180			199	71%	78%	B4h	C7h		
Gobo 10 - 50% Aperture	200			219	78%	86%	C8h	DBh		
Gobo 11 - 75% Aperture	220			239	86%	94%	DCh	EFh		
Open	240			255	94%	100%	F0h	FFh		
Spin & Random										
Stop	0			3	0%	1%	00h	03h		
Slow to Fast	4			255	2%	100%	04h	FFh		
Scan										
Open/Shattered	0			21	0%	8%	00h	15h		
Shattered/MiscSpots	22			43	9%	17%	16h	2Bh		
MiscSpots/Light Organic	44			65	17%	25%	2Ch	41h		
Light Organic/Thatch	66			87	26%	34%	42h	57h		
Thatch/Across	88			109	35%	43%	58h	6Dh		
Across/Triangles	110			131	43%	51%	6Eh	83h		
Triangles/Daisy	132			153	52%	60%	84h	99h		
Daisy/Small Aperture	154			175	60%	69%	9Ah	AFh		
Small Aperture/25% Aperture	176			197	69%	77%	B0h	C5h		
25% Aperture/50% Aperture	198			219	78%	86%	C6h	DBh		
50% Aperture/75% Aperture	220			241	86%	95%	DCh	F1h		
75% Aperture/Open	242			255	95%	100%	F2h	FFh		
19	Animation Insertion	Removed to Inserted	0	255	0%	100%	00h	FFh	0	

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Hyperstar DMX Channel Map

Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default
20	Animation Rotate	Forward Spin, Stop to Fast	0	63	0%	25%	00h	3Fh	0
		Reverse Spin, Stop to Fast	64	127	25%	50%	40h	7Fh	
		Forward Animate, Stop to Fast	128	191	50%	75%	80h	BFh	
		Reverse Animate, Stop to Fast	192	255	75%	100%	C0h	FFh	
21	Prism 1 Mode (see note 4 on page 14)	Removed	0	15	0%	6%	00h	0Fh	0
		Continuous	16	31	6%	12%	10h	1Fh	
		Forward Spin	32	47	13%	18%	20h	2Fh	
		Reverse Spin	48	63	19%	25%	30h	3Fh	
		Forward Animate	64	79	25%	31%	40h	4Fh	
		Reverse Animate	80	95	31%	37%	50h	5Fh	
		Reserved (see note 5 on page 14)	96	255	38%	100%	60h	FFh	
22/23	Prism 1 Rotate (Coarse/Fine)	Continuous							32767
		0–359 degrees	0	65535	0%	100%	00h	FFFFh	
		Spin & Animate							
		Stop	0	1027	0%	2%	00h	0403h	
24	Reserved	Reserved for Future Use	0	255	0%	100%	00h	FFh	0
		Reserved for Future Use	0	255	0%	100%	00h	FFh	0
25	Diffusion 1 (see note 4 on page 14)	Removed	0	0	0%	0%	00h	00h	0
		Hard to Soft Edge	1	255	0%	100%	01h	FFh	
26	Reserved	Reserved for Future Use	0	255	0%	100%	00h	FFh	0
27	Diffusion 2	Removed	0	0	0%	0%	00h	00h	0
		Hard to Soft edge	1	255	0%	100%	01h	FFh	
28	Diffusion 3	Removed	0	0	0%	0%	00h	00h	0
		Hard to Soft Edge	1	255	0%	100%	01h	FFh	
29/30	Focus (Coarse/Fine)	Focus	0	65535	0%	100%	00h	FFFFh	32767
31/32	Zoom (Coarse/Fine)	Zoom	0	65535	0%	100%	00h	FFFFh	32767
33	Strobe Mode	Normal	0	31	0%	12%	00h	1Fh	0
		Random	32	63	13%	25%	20h	3Fh	
		Synchronous Random (see note 2 on page 14)	64	95	25%	37%	40h	5Fh	
		Reserved (see note 5 on page 14)	96	255	38%	100%	60h	FFh	
34	Strobe	Close	0	23	0%	9%	00h	17h	255
		Slow to Fast	24	229	9%	90%	18h	E5h	
		Open	230	255	90%	100%	E6h	FFh	
35/36	Dimmer (Coarse/Fine)	Off to Full	0	65535	0%	100%	00h	FFFFh	0
37	Mspeed	Not Enabled	0	3	0%	1%	00h	03h	0
		Longest to Shortest	4	255	2%	100%	04h	FFh	

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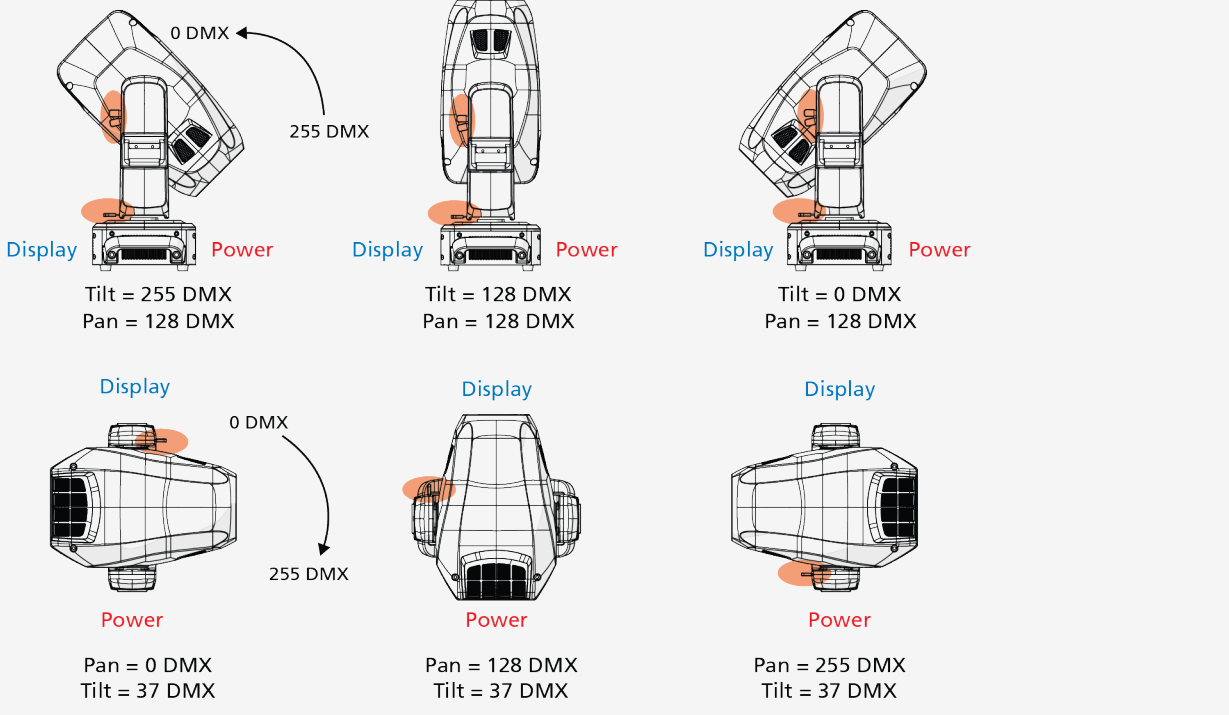
Hyperstar DMX Channel Map

Channel	Function	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default	
38	Control	No hold time requirement for the following functions (see note 7 on page 14):								
		Idle	0	15	0%	6%	00h	0Fh	0	
		Pan and Tilt mSpeed Off	16	19	6%	7%	10h	13h		
		Reserved (see note 5 on page 14)	20	31	8%	12%	14h	1Fh		
		Hold time requirement for the following functions:								
		Display Off (3 s)	32	47	13%	18%	20h	2Fh		
		Display On (3 s)	48	63	19%	25%	30h	3Fh		
		Reserved (see note 5 on page 14)	64	79	25%	31%	40h	4Fh		
		Home All (3 s)	80	95	31%	37%	50h	5Fh		
		Shutdown (9 s)	96	111	38%	44%	60h	6Fh		
		Disable Pan/Tilt Motors (3 s)	112	127	44%	50%	70h	7Fh		
		Dimming Mode - 2.4 kHz (3 s)	128	143	50%	56%	80h	8Fh		
		Dimming Mode - 16 kHz (3 s)	144	159	56%	62%	90h	9Fh		
		Reserved (see note 5 on page 14)	160	255	63%	100%	A0h	FFh		
39	Fan (see note 3 on page 14)	Idle	0	15	0%	6%	00h	0Fh		0
		Slow to Fast	16	207	6%	81%	10h	CFh		
		Auto	208	223	82%	87%	D0h	DFh		
		Studio	224	239	88%	94%	E0h	EFh		
		Reserved	240	255	94%	100%	F0h	FFh		

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Hyperstar DMX Channel Map

Notes








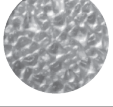

1	<p>Continuous and Indexed modes should take the quickest path from 255-0 and 0-255. Continuous mode color wheel aperture centers are as follows:</p> <table border="1" data-bbox="225 359 836 793"> <thead> <tr> <th>Color</th> <th>Center of Color DMX Value</th> </tr> </thead> <tbody> <tr><td>Open</td><td>0</td></tr> <tr><td>Red</td><td>27</td></tr> <tr><td>Blue</td><td>50</td></tr> <tr><td>Green</td><td>73</td></tr> <tr><td>Yellow</td><td>94</td></tr> <tr><td>Purple</td><td>117</td></tr> <tr><td>TM-30</td><td>140</td></tr> <tr><td>Lavender</td><td>163</td></tr> <tr><td>4400 K</td><td>185</td></tr> <tr><td>3200 K</td><td>208</td></tr> <tr><td>Dark Blue</td><td>230</td></tr> </tbody> </table>	Color	Center of Color DMX Value	Open	0	Red	27	Blue	50	Green	73	Yellow	94	Purple	117	TM-30	140	Lavender	163	4400 K	185	3200 K	208	Dark Blue	230
Color	Center of Color DMX Value																								
Open	0																								
Red	27																								
Blue	50																								
Green	73																								
Yellow	94																								
Purple	117																								
TM-30	140																								
Lavender	163																								
4400 K	185																								
3200 K	208																								
Dark Blue	230																								
2	Synchronous random strobes are synchronized across fixtures.																								
3	When the fixture is turned off it will retain the selected fan mode.																								
4	Prism 1 and Prism 2 can be inserted in the light path simultaneously.																								
5	Reserved ranges should function according to the controller default value.																								
6	<p>DMX Fixture Orientation (Tilt Movement Range: 255°; Pan Movement Range: 540°) (Pan and tilt lock locations are highlighted in orange.)</p>  <p>Top Row (Side Views):</p> <ul style="list-style-type: none"> 0 DMX (Left): Tilt = 255 DMX, Pan = 128 DMX. Labels: Display (blue), Power (red). 255 DMX (Middle): Tilt = 128 DMX, Pan = 128 DMX. Labels: Display (blue), Power (red). 0 DMX (Right): Tilt = 0 DMX, Pan = 128 DMX. Labels: Display (blue), Power (red). <p>Bottom Row (Top-down Views):</p> <ul style="list-style-type: none"> 0 DMX (Left): Pan = 0 DMX, Tilt = 37 DMX. Labels: Power (red). 255 DMX (Middle): Pan = 128 DMX, Tilt = 37 DMX. Labels: Display (blue), Power (red). 0 DMX (Right): Pan = 255 DMX, Tilt = 37 DMX. Labels: Display (blue), Power (red). 																								
7	Control channel functions with no hold time requirement must apply upon receipt.																								
8	RDM Manufacturer ID: 0x4c52																								
9	RDM Device ID: 0x2F0C																								

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Hyperstar DMX Channel Map

Hyperstar Gobos

Rotating Gobo Wheel

Position	Name	Image
0	Open	N/A
1	Bar	
2	Starvolver	
3	Fracked	
4	Broken Tunnel	
5	Seashell	
6	Glacial	
7	Shower	
8	Ice	
9	Branch Out	

Fixed Gobo Wheel

Position	Name	Image
0	Open	N/A
1	Shattered	
2	MiscSpots	
3	Light Organic	
4	Thatch	
5	Across	
6	Triangles	
7	Daisey	
8	Small Aperture	
9	25% Aperture	
10	50% Aperture	
11	75% Aperture	

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Hyperstar DMX Channel Map

Revision History

Revision	Change	Release Date
A	Initial release	September 2023