

8. SCX700 DMX PROTOCOL

Channel	Value	Percent	Function
1			Shutter, dimmer, strobe effect, reset <i>With dimming disabled in PER → INT (default)</i>
	0-18	0-7	Shutter closed
	19-38	7-14	Shutter open
	0-38	0-14	<i>With dimming enabled in PER → INT</i> Continuous dimming, 0% - 100% intensity
	39-95	15-37	Strobe slow → fast
	96-103	38-40	Shutter open
	104-151	41-59	Random strobe slow → fast
	152-159	60-62	Shutter open
	160-199	63-78	Music triggered shutter
	200-207	79-81	Shutter open
	208-219	82-85	Lamp on
	220-239	86-93	Shutter open
	240-247	94-96	Lamp off (must be held for 5 seconds. 8 min. delay before lamp can be restruck)
248-251	97-98	Shutter open	
252-255	99-100	Reset (must be held for 5 seconds to blackout and reset)	
2			Color wheel positions and rotation, music trig color chase
			Continuously scrolling color wheel positions
	0	0	White
	12	4	Color 1 Blue B04
	24	9	Color 2 Red B14
	36	14	Color 3 Yellow B02
	48	18	Color 4 Magenta B12M
	60	23	Color 5 Cyan B05
	72	28	Color 6 Green B08
	84	33	Color 7 Orange B09
	96	37	Color 8 Congo B13
	108	42	Color 9 Pink B16
			Indexed color wheel positions
	120-128	47-50	White
	129-135	51-52	Color 1 Blue B04
	136-142	53-55	Color 2 Red B14
	143-149	56-58	Color 3 Yellow B02
	150-156	59-61	Color 4 Magenta B12M
	157-163	62-64	Color 5 Cyan B05
	164-170	65-66	Color 6 Green B08
	171-177	67-69	Color 7 Orange B09
	178-184	70-72	Color 8 Congo B13
	185-191	73-74	Color 9 Pink B16
		Continuous color wheel rotation	
192-215	75-84	CW fast → slow	
216-239	85-93	CCW slow → fast	
		Music triggered color chase	
240-245	94-96	Fast	
246-250	97-98	Medium	
251-255	99-100	Slow	

Channel	Value	Percent	Function
3			Gobo selection, gobo shake, music trig gobo chase
			Gobo indexing: select gobo (set indexing angle on channel 4)
	0-7	0 - 2	Open
	8-15	3-5	Gobo 1: Parasol twist
	16-23	6-8	Gobo 2: Plaid dream, cyan B20,
	24-31	9-11	Gobo 3: Cartwheel
	32-39	12-14	Gobo 4: Plaid dream, think pink B12M
	40-47	15-18	Gobo 5: Spiral galaxy
	48-55	19-21	Gobo 6: Moons, blue 04
	56-63	22-24	Gobo 7: Radial burst
			Gobo rotation: select gobo (set movement on channel 4)
	64-71	25-27	Gobo 1: Parasol twist
	72-79	28-30	Gobo 2: Plaid dream, cyan B20,
	80-87	31-33	Gobo 3: Cartwheel
	88-95	34-37	Gobo 4: Plaid dream, think pink B12M
	96-103	38-40	Gobo 5: Spiral galaxy
	104-111	41-43	Gobo 6: Moons, blue 04
	112-127	44-49	Gobo 7: Radial burst
			Gobo shake
	128-143	50-55	Gobo 1, shake fast → slow
	144-159	56-62	Gobo 2, shake fast → slow
160-175	63-68	Gobo 3, shake fast → slow	
176-191	69-74	Gobo 4, shake fast → slow	
192-207	75-81	Gobo 5, shake fast → slow	
208-223	82-87	Gobo 6, shake fast → slow	
224-239	88-93	Gobo 7, shake fast → slow	
		Music triggered gobo chase	
240-245	94-96	Fast	
246-250	97-98	Med	
251-255	99-100	Slow	
4			Gobo indexing angle, gobo rotation movement, music trig gobo rotation
			Gobo indexing angle (select gobo on channel 3)
	0-255	0-100	Indexing 0-395°
			Gobo rotation: set movement (select gobo on channel 3)
	0-7	0 - 2	Stop
	8-77	3-29	Rotation CW slow → fast
	78-147	30-57	Rotation CCW fast→slow
	148-153	58-59	stop
	154-223	60-87	Rotation CW slow → fast
	224-239	88-93	Rotation shake
		Music triggered rotation	
240-245	94-96	Fast	
246-250	97-98	Med	
251-255	99-100	Slow	
5	0 - 255	0 - 100	Pan Left → right (128 = neutral)
6	0 - 255	0 - 100	Tilt Down → up (128 = neutral)

Channel	Value	Percent	Function
7*	Pan & tilt macros (DMX mode 2 only)		
	0 - 15	0 - 5	No Macro
	16 - 31	6 - 11	Macro 1
	32 - 47	12 - 18	Macro 2
	48 - 63	19 - 24	Macro 3
	64 - 79	25 - 30	Macro 4
	80 - 95	31 - 37	Macro 5
	96 - 111	38 - 43	Macro 6
	112 - 127	44 - 49	Macro 7
	128 - 143	50 - 55	Macro 8
	144 - 159	56 - 62	Macro 9
	160 - 175	63 - 68	Macro 10
	176 - 191	69 - 74	Macro 11
	192 - 207	75 - 81	Macro 12
208 - 255	82 - 100	Reserved. No function	
8*	Effects macros (DMX mode 2 only)		
	0 - 15	0 - 5	No Macro
	16 - 31	6 - 11	Macro 1
	32 - 47	12 - 18	Macro 2
	48 - 63	19 - 24	Macro 3
	64 - 79	25 - 30	Macro 4
	80 - 95	31 - 37	Macro 5
	96 - 111	38 - 43	Macro 6
	112 - 127	44 - 49	Macro 7
	128 - 143	50 - 55	Macro 8
	144 - 159	56 - 62	Macro 9
	160 - 175	63 - 68	Macro 10
	176 - 191	69 - 74	Macro 11
	192 - 207	75 - 81	Macro 12
208 - 255	82 - 100	Reserved. No function	
9*	Pan & tilt speed (Mode 2 only)		
	0-7	0-2	Tracking (default)
	8-240	3-94	Fast → slow
	241-245	95-96	Blackout during color and gobo changes
	246-250	97-98	Blackout during pan and tilt changes
251-255	99-100	Blackout during color, gobo, pan and tilt changes	
10*	Effect speed (Mode 2 only)		
	0-7	0-2	Tracking (default)
	8-255	3-100	Fast → slow

* Channels 7 - 10 are available in DMX mode 2 only. In DMX mode 1, pan & tilt speed and effects speed are set to 'tracking'.