

## Studio Command I200 Protocol

Channel	Parameter	Description	Value (dec.)	Value (%)	Value (hex)
1	Pan	Pan, coarse adjustment	0-255	0-100	00-FF
2	Pan	Pan, fine adjustment	0-255	0-100	00-FF
3	Tilt	Tilt, coarse adjustment	0-255	0-100	00-FF
4	Tilt	Tilt, fine adjustment	0-255	0-100	00-FF
5	Color Function	<b>Full Speed Control</b>			
		Continuous	0-15	0-6	00-0F
		Cycle (Speed is set by the Cyan channel)	16-31	6-12	10-1F
		Random (Speed is set by the Cyan channel)	32-47	13-18	20-2F
		TBD	48-127	19-50	30-7F
		<b>MSpeed Controlled</b>			
		Continuous	128-143	50-56	80-8F
		Cycle (Speed is set by the Cyan channel)	144-159	57-62	90-9F
Random (Speed is set by the Cyan channel)	160-175	63-69	A0-AF		
TBD	176-255	69-100	B0-FF		
6	Cyan Wheel	<b>Continuous Mode. Absolute position across 360 degrees</b>			
		Cyan Full Saturation	0	0	00
		Open	255	100	FF
		<b>Cycle &amp; Random Modes</b> (sets the rate for all color wheels when Color function parameter = 16-47)			
		Slow Rate	0	0	00
		Fast Rate	255	100	FF
7	Magenta Wheel Wheel	Magenta Full Saturation	0	0	00
		Open	255	100	FF
8	Yellow Wheel Wheel	Yellow Full Saturation	0	0	00
		Open	255	100	FF
9	Zoom	Zoom Narrow	0	0	00
		Zoom Wide	255	100	FF
10	Shutter Function	<b>Normal Shutter Functions</b> (No lamp or dimming functions selected in Control channel)			
		Close	0-23	0-9	00-17
		Periodic Strobe, Mechanical from 1-4Hz operation	24-27	9-10	18-1B
		Periodic Strobe, Electronic from 5-33Hz operation	28-49	11-19	1C-31
		Random Random Strobe	50-75	20-29	32-4B
		Synchronous Random Strobe	76-101	30-40	4C-65
		Open	102-255	41-100	66-FF
		<b>Lamp Assisted Strobes</b> (Accessed when the Control channel range = 134-137) The shutter functions are the same as in the normal shutter function range. Periodic random random and random synchronous strobes are lamp assisted.			
10	Shutter Function	<b>Lamp functions.</b> (Accessed when the Control channel range = 138-141) The shutter functions are the same as in the normal shutter function range. Periodic random random and random synchronous strobes are lamp assisted.			
		<b>Lamp Dimming only.</b> (Accessed when the Control Channel range = 146-149) The shutter functions are the same as the normal shutter function range. Dimming is accomplished electronically, lowering the lamp power. Dimming will not go to black. Strobes are mechanical and will go to black.			
11	Dim	Close	0	0	00
		Open	255	100	FF
12	MSpeed	Disable	0-3	0-1	00-03
		Longest (252.7 sec.)	4	2	04
		Shortest (0.15 sec.)	255	100	FF

Channel	Parameter	Description	Value (dec.)	Value (%)	Value (hex)
13	Macro Note 1)	Macro Off	0-5	0-2	00-05
		Pan sweep, small to large angle	6-62	2-24	06-3E
		Macro Off	63-65	25-25	3F-41
		Tilt sweep, small to large angle	66-122	26-48	42-7A
		Macro Off	123-125	48-49	7B-7D
		Clockwise circle, small to large	126-160	49-63	7E-A0
		Macro Off	161-163	63-64	A1-A3
		Counterclockwise circle, small to large	164-198	64-78	A4-C6
		Reserved	199-255	78-100	C7-FF
14	Control	<b>The Control channel should not be crossfaded.</b>			
		Safe (disables all Control settings)	0-9	0-4	00-09
		Pan & Tilt MSpeed Off	10-19	4-7	0A-13
		<b>Set Shutter channel to 0 for access to the following commands.</b>			
		Display Off	20-28	8-11	14-1C
		Display Dim	30-38	12-15	1E-26
		Display Bright	40-48	16-19	28-30
		Home	60-68	24-27	3C-44
		Lamp On	80-88	31-35	50-58
		Lamp Off	90-98	35-38	5A-62
		Shutdown (send for 5 seconds)	120-130	47-51	78-82
		<b>Lamp Functions</b>			
		Lamp assisted strobes (Periodic and Random strobe functions are lamp assisted. Ramp functions are not lamp assisted.)	134-137	53-54	86-89
		Lamp functions (modifies the shutter channel)	138-141	54-55	8A-8D
		Lamp/mechanical dimming (Lamp output will vary from a minimum to 1200 Watts as the mechanical dimming ranges from 0-100%)	142-145	56-57	8E-91
		Lamp only dimming (Electronic dimming only from a minimum to 1200 Watts.)	146-149	57-58	92-95
		To be determined	150-255	59-100	96-FF

**Note :** The pan and tilt coarse channels set the center position of the position macro. The Mspeed channel is used to control the speed of the macros.

With the Mspeed set at the default value of DMX 0-4 all internal effects complete moves at approximately 2.5 seconds. This provides a pleasing look for those customers that do not want the additional variation given by using the Mspeed channel.

With the Mspeed set between DMX 5-255 all internal effects complete moves at the selected Mspeed time (up to 25 seconds).



