

**PTZOptics VISCA Control Commands**

v1.1

Command Set	Command	Command Packet	Comments
CAM_Power	On	8x 01 04 00 02 FF	Power ON / OFF
	Off	8x 01 04 00 03 FF	
CAM_Focus	Stop	8x 01 04 08 00 FF	<p><i>P=0 (Low) to 7 (High)</i>  <i>pqrs: Focus Position (0000 to 2900 (12X) 0000 to 1770 (20X))</i></p>
	Tele(Standard)	8x 01 04 08 03 FF	
	Wide(Standard)	8x 01 04 08 02 FF	
	Tele(Variable)	8x 01 04 08 2p FF	
	Wide(Variable)	8x 01 04 08 3p FF	
	Direct	81 01 04 48 0p 0q 0r 0s FF	
	Auto Focus	8x 01 04 38 02 FF	
	Manual Focus	8x 01 04 38 03 FF	
	Auto/Manual	8x 01 04 38 10 FF	AutoFocus ON / OFF
CAM_ZoomFocus	Direct	8x 01 04 47 0p 0q 0r 0s 0t 0u 0v 0w FF	<p><i>pqrs: Zoom Position (0000 - 4000)</i>  <i>tuvw: Focus Position (0000 to 2900 (12X) 0000 to 1770 (20X))</i></p>
CAM_Zoom	Stop	8x 01 04 07 00 FF	<p><i>p=0 (Low) to 7 (High)</i>  <i>pqrs: Zoom Position (0000 - 4000)</i></p>
	Tele	8x 01 04 07 02 FF	
	Wide	8x 01 04 07 03 FF	
	Tele	8x 01 04 07 2p FF	
	Wide	8x 01 04 07 3p FF	
	Direct	8x 01 04 47 0p 0q 0r 0s FF	
CAM_WB	Auto	8x 01 04 35 00 FF	Normal Auto
	Indoor	8x 01 04 35 01 FF	Indoor Mode
	Outdoor	8x 01 04 35 02 FF	Outdoor Mode
	One Push	8x 01 04 35 03 FF	OnePush WB Mode
	Manual	8x 01 04 35 05 FF	Manual Control Mode
CAM_AE	Full Auto	8x 01 04 39 00 FF	Automatic Exposure Mode
	Manual	8x 01 04 39 03 FF	Manual Control Mode
	Bright	8x 01 04 39 0D FF	Bright mode (Manual control)
	Shutter Priority	8x 01 04 39 0A FF	Shutter Priority Automatic Exposure Mode
	Iris Priority	8x 01 04 39 0B FF	Iris Priority Automatic Exposure Mode
CAM_RGain	Reset	8x 01 04 03 00 FF	<p><i>pq: R Gain (Ranges listed at the end of this sheet)</i>  <i>Cam must be in manual WB mode</i></p>
	Up	8x 01 04 03 02 FF	
	Down	8x 01 04 03 03 FF	
	Direct	8x 01 04 43 00 00 0p 0q FF	
CAM_BGain	Reset	8x 01 04 04 00 FF	<p><i>pq: B Gain (Ranges listed at the end of this sheet)</i>  <i>Cam must be in manual WB mode</i></p>
	Up	8x 01 04 04 02 FF	
	Down	8x 01 04 04 03 FF	
	Direct	8x 01 04 44 00 00 0p 0q FF	
CAM_Shutter	Reset	8x 01 04 0A 00 FF	<p><i>Exposure mode must be set to SAE or Manual in order to change this setting</i>  <i>pq: Shutter Position (Ranges listed at the end of this sheet)</i></p>
	Up	8x 01 04 0A 02 FF	
	Down	8x 01 04 0A 03 FF	
	Direct	8x 01 04 4A 00 00 0p 0q FF	
CAM_Iris	Reset	8x 01 04 0B 00 FF	<p><i>Exposure mode must be set to AAE or Manual in order to change this setting</i>  <i>pq: Iris Position (Ranges listed at the end of this sheet)</i></p>
	Up	8x 01 04 0B 02 FF	
	Down	8x 01 04 0B 03 FF	
	Direct	8x 01 04 0B 00 00 0p 0q FF	
CAM_Gain	Reset	8x 01 04 0C 00 FF	<p><i>Exposure must be set to Manual to adjust this setting</i>  <i>pq: Gain Position (Ranges listed at the end of this sheet)</i></p>
	Up	8x 01 04 0C 02 FF	
	Down	8x 01 04 0C 03 FF	
	Direct	8x 01 04 4C 00 00 0p 0q FF	
CAM_Backlight	On	8x 01 04 33 02 FF	Backlight Compensation ON / OFF
	Off	8x 01 04 33 03 FF	

CAM_ExpComp	On	8x 01 04 0E 02 FF	<i>Exposure Compensation ON/OFF</i>
	Off	8x 01 04 0E 03 FF	
	Reset	8x 01 04 0E 00 FF	<i>Exposure Compensation Amount Setting</i>
	Up	8x 01 04 0E 02 FF	
	Down	8x 01 04 0E 03 FF	
	Direct	8z 01 04 4E 00 00 0p 0q FF	
CAM_Picture Effect	Black and White	8x 01 04 63 04 FF	<i>On/Off Toggle</i>
CAM L_R Reverse	On	8x 01 04 61 02 FF	<i>Image Flip Horizntal On/Off</i>
	Off	8x 01 04 61 03 FF	
CAM Picture Flip	On	8x 01 04 66 02 FF	<i>Image Flip Vertical On/Off</i>
	Off	8x 01 04 66 03 FF	
CAM_Memory	Reset	8x 01 04 3F 00 0p FF	<i>0p: Preset Number (Ranges fully listed at the end of this Sheet 01 --&gt; 3F)</i>
	Set	8x 01 04 3F 01 0p FF	
	Recall	8x 01 04 3F 02 0p FF	
CAM_OnScreenDisplay	On	8x 01 04 15 02 FF	
	Off	8x 01 04 15 03 FF	
	On/Off Toggle	8x 01 04 15 10 FF	
IR_Receive	On	8x 01 06 08 02 FF	<i>Remote - IR Receiever Enabled / Disabled</i>
	Off	8x 01 06 08 03 FF	
Pan-tiltDrive	Up	8x 01 06 01 VV WW 03 01 FF	<i>VV: Pan Speed      Pan Speed</i> <i>0 x01 (low speed) to 0 x18 (high speed)</i>
	Down	8x 01 06 01 VV WW 03 02 FF	
	Left	8x 01 06 01 VV WW 01 03 FF	<i>WW: Tilt Speed      Tilt Speed</i> <i>0 x01 (low speed) to 0 x14 (high speed)</i>
	Right	8x 01 06 01 VV WW 02 03 FF	
	UpLeft	8x 01 06 01 VV WW 01 01 FF	
	UpRight	8x 01 06 01 VV WW 02 01 FF	
	DownLeft	8x 01 06 01 VV WW 01 02 FF	
	DownRight	8x 01 06 01 VV WW 02 02 FF	
	Stop	8x 01 06 01 VV WW 03 03 FF	
	AbsolutePosition	8x 01 06 02 VV WW	<i>YYYY:              Pan Position</i>
		0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF	<i>F670 (left) to 0990 (right)</i>
	Relative Position	8x 01 06 03 VV WW	<i>ZZZZ:              Tilt Position</i>
		0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF	<i>FAF0 (down) to 0510 (up)</i>
	Home	8x 01 06 04 FF	
Reset	8x 01 06 05 FF		
Pan-tiltLimitSet	LimitSet	8x 01 06 07 00 0W	<i>W:                    1 (up &amp; right) &amp; 0 (down &amp; left)</i>
		0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF	<i>YYYY:              Pan Position</i> <i>F670 (left) to 0990 (right)</i>
	LimitClear	8x 01 06 07 01 0W	<i>ZZZZ:              Tilt Position</i> <i>FAF0 (down) to 0510 (up)</i>
		0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF	

Direct Shutter Values	p,q values	CAM_Memory	p,q values	CAM_Memory	p,q values
1/30	0,1	Preset 0	0,0	Preset 32	20
1/60	0,2	Preset 1	0,1	Preset 33	21
1/90	0,3	Preset 2	0,2	Preset 34	22
1/100	0,4	Preset 3	0,3	Preset 35	23
1/125	0,5	Preset 4	0,4	Preset 36	24
1/180	0,6	Preset 5	0,5	Preset 37	25
1/250	0,7	Preset 6	0,6	Preset 38	26
1/350	0,8	Preset 7	0,7	Preset 39	27
1/500	0,9	Preset 8	0,8	Preset 40	28
1/725	0,A	Preset 9	0,9	Preset 41	29
1/1000	0,B	Preset 10	0A	Preset 42	2A
1/1500	0,C	Preset 11	0B	Preset 43	2B
1/2000	0,D	Preset 12	0C	Preset 44	2C
1/3000	0,E	Preset 13	0D	Preset 45	2D
1/4000	0,F	Preset 14	0E	Preset 46	2E
1/6000	1,0	Preset 15	0F	Preset 47	2F
1/10000	1,1	Preset 16	10	Preset 48	30
<b>Direct Iris Values</b>	<b>p,q values</b>	Preset 17	11	Preset 49	31
Close	0,0 : 0,3	Preset 18	12	Preset 50	32
F11	0,6	Preset 19	13	Preset 51	33
F9.6	0,7	Preset 20	14	Preset 52	34
F8.0	0,8	Preset 21	15	Preset 53	35
F6.8	0,9	Preset 22	16	Preset 54	36
F5.6	0,A	Preset 23	17	Preset 55	37
F4.8	0,B	Preset 24	18	Preset 56	38
F4.0	0,C	Preset 25	19	Preset 57	39
F3.4	0,D	Preset 26	1A	Preset 58	3A
F2.8	0,E	Preset 27	1B	Preset 59	3B
F2.4	0,F	Preset 28	1C	Preset 60	3C
F2.0	1,0	Preset 29	1D	Preset 61	3D
F1.8	2,0	Preset 30	1E	Preset 62	3E
<b>Gain Values</b>	<b>p,q values</b>	Preset 31	1F	Preset 63	3F
0	0,0				
1	0,1				
2	0,2				
3	0,3				
4	0,4				
5	0,5				
6	0,6				
7	0,8				
<b>Exp Comp Values</b>	<b>p,q values</b>				
-7	0,0				
-6	0,1				
-5	0,2				
-4	0,3				
-3	0,4				
-2	0,5				
-1	0,6				
0	0,7				
1	0,8				
2	0,9				
3	0,A				
4	0,B				
5	0,C				
6	0,D				
7	0,E				

Values for Direct R and B Gain	p,q values	Values for Direct R and B Gain	p,q values	Values for Direct R and B Gain	p,q values	Values for Direct R and B Gain	p,q values
0	0,0	64	40	128	80	192	C0
1	0,1	65	41	129	81	193	C1
2	0,2	66	42	130	82	194	C2
3	0,3	67	43	131	83	195	C3
4	0,4	68	44	132	84	196	C4
5	0,5	69	45	133	85	197	C5
6	0,6	70	46	134	86	198	C6
7	0,7	71	47	135	87	199	C7
8	0,8	72	48	136	88	200	C8
9	0,9	73	49	137	89	201	C9
10	0A	74	4A	138	8A	202	CA
11	0B	75	4B	139	8B	203	CB
12	0C	76	4C	140	8C	204	CC
13	0D	77	4D	141	8D	205	CD
14	0E	78	4E	142	8E	206	CE
15	0F	79	4F	143	8F	207	CF
16	10	80	50	144	90	208	D0
17	11	81	51	145	91	209	D1
18	12	82	52	146	92	210	D2
19	13	83	53	147	93	211	D3
20	14	84	54	148	94	212	D4
21	15	85	55	149	95	213	D5
22	16	86	56	150	96	214	D6
23	17	87	57	151	97	215	D7
24	18	88	58	152	98	216	D8
25	19	89	59	153	99	217	D9
26	1A	90	5A	154	9A	218	DA
27	1B	91	5B	155	9B	219	DB
28	1C	92	5C	156	9C	220	DC
29	1D	93	5D	157	9D	221	DD
30	1E	94	5E	158	9E	222	DE
31	1F	95	5F	159	9F	223	DF
32	20	96	60	160	A0	224	E0
33	21	97	61	161	A1	225	E1
34	22	98	62	162	A2	226	E2
35	23	99	63	163	A3	227	E3
36	24	100	64	164	A4	228	E4
37	25	101	65	165	A5	229	E5
38	26	102	66	166	A6	230	E6
39	27	103	67	167	A7	231	E7
40	28	104	68	168	A8	232	E8
41	29	105	69	169	A9	233	E9
42	2A	106	6A	170	AA	234	EA
43	2B	107	6B	171	AB	235	EB
44	2C	108	6C	172	AC	236	EC
45	2D	109	6D	173	AD	237	ED
46	2E	110	6E	174	AE	238	EE
47	2F	111	6F	175	AF	239	EF
48	30	112	70	176	B0	240	F0
49	31	113	71	177	B1	241	F1
50	32	114	72	178	B2	242	F2
51	33	115	73	179	B3	243	F3
52	34	116	74	180	B4	244	F4
53	35	117	75	181	B5	245	F5
54	36	118	76	182	B6	246	F6
55	37	119	77	183	B7	247	F7
56	38	120	78	184	B8	248	F8
57	39	121	79	185	B9	249	F9
58	3A	122	7A	186	BA	250	FA
59	3B	123	7B	187	BB	251	FB
60	3C	124	7C	188	BC	252	FC
61	3D	125	7D	189	BD	253	FD
62	3E	126	7E	190	BE	254	FE
63	3F	127	7F	191	BF	255	FF