Sennetech

SCT-1020

CAMERA CONTROL CODE TRANSLATOR
VICON RS-422 to PELCO RS-422 ver 1.5

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PRODUCT DESCRIPTION

The SCT-1020 is a Vicon to Pelco control code translator designed to permit control of Pelco cameras from Vicon VPS series controllers. It receives Vicon RS-422 commands and re-transmits the appropriate commands in Pelco "D" or "P" code format. There are four independent Pelco outputs.

The SCT-1020 will appear to the Vicon controller as a group of responding receiver/drivers. Internal switches set the low camera number and the high camera number to which it will respond.

Input and output connections are made with mating screw terminal connectors. Front panel LEDs indicate status of power, receive, and transmit.

There is an optional 19" rack mount panel (one rack unit high).

SPECIFICATIONS

SIZE:	5.57"W x 1.52H x 5.45D
WEIGHT:	1.5 lb
POWER:	9Volt to 15Volt AC or DC at 75ma
INDICATORS:	Front panel LEDs: Power, Rx, & Tx,
VICON CMD IN:	(1) mating 3-pin screw terminal connector
VICON RSP OUT:	(1) mating 3-pin screw terminal connector
PELCO RS-422 OUTPUTS:	(4) mating 3-pin Screw terminal connectors

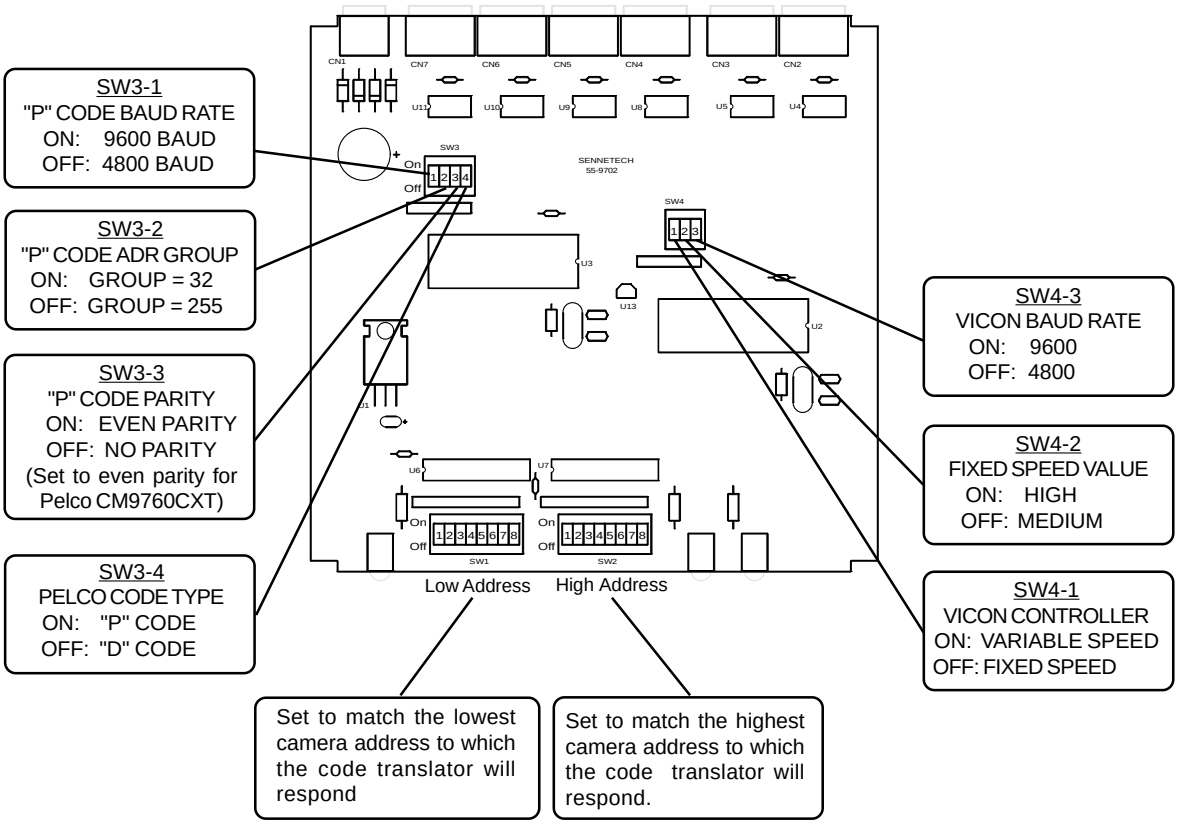
CONFIGURATION SWITCHES

The configuration switches determine how the code translator will operate. A status tag on the bottom of the code translator case shows the current settings. If switch settings are changed, the status tag should be updated to show the new settings.

To set the configuration switches, remove the back panel which is secured by two screws. Then slide the cover back to expose the switches. Set the switch to either ON or OFF. The switches can be changed with power applied and the changes take effect immediately.

The Pelco code parameters are set by switch 3. When using "D" code, the Pelco domes can have addresses from 1 to 255 which matches the Vicon addresses. Otherwise, the the Pelco domes have an address upper limit of 32.
If SW3-2 is ON, the Pelco addresses will "rollover" at multiples of 32.
If "D" code is selected, (SW3-4 off), the other parts of switch 3 have no effect.

If the Vicon controller sends variable speed pan and tilt code, set SW4-1 on. If this switch is off, SW4-2 determines whether the Pelco assumed speed is medium or high and Aux 5 & Aux 6 can be used to modify the speeds.

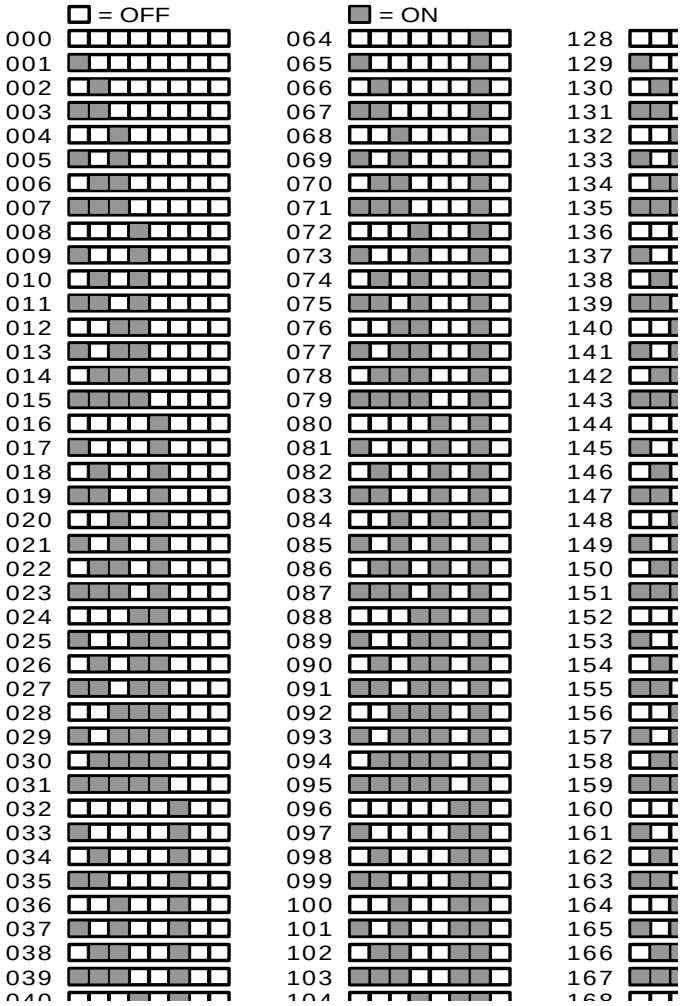


The code translator will appear as a group of cameras to the controller. To prevent interference between the responses from the code translator and any Vicon cameras in the system, set the switches to include only the Pelco camera addresses.

If switch 3 is set for "P" code with address groups of 32, the Vicon address group should be limited to 32.

Refer to the charts on the following pages for camera address settings.

CAMERA ADDRESS SWITCH SETTING CHART



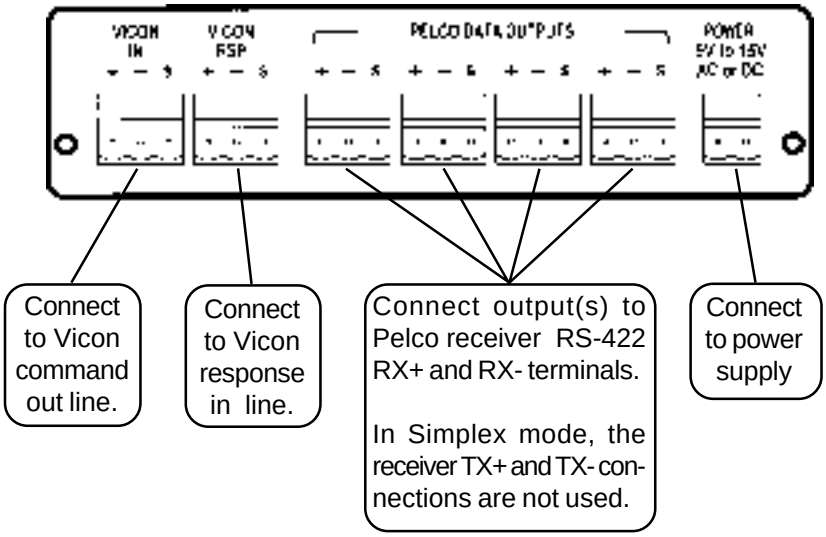
CONVERSION CHART FOR "P" CODE ADDRESS GROUP SIZE OF 32

GROUP 1		GROUP 2		GROUP 3		GROUP 4		GROUP 5		GROUP 6		GROUP 7		GROUP 8	
VICON	PELCO	VICON	PELCO	VICON	PELCO	VICON	PELCO	VICON	PELCO	VICON	PELCO	VICON	PELCO	VICON	PELCO
1	1	33	1	65	1	97	1	129	1	161	1	193	1	225	1
2	2	34	2	66	2	98	2	130	2	162	2	194	2	226	2
3	3	35	3	67	3	99	3	131	3	163	3	195	3	227	3
4	4	36	4	68	4	100	4	132	4	164	4	196	4	228	4
5	5	37	5	69	5	101	5	133	5	165	5	197	5	229	5
6	6	38	6	70	6	102	6	134	6	166	6	198	6	230	6
7	7	39	7	71	7	103	7	135	7	167	7	199	7	231	7
8	8	40	8	72	8	104	8	136	8	168	8	200	8	232	8
9	9	41	9	73	9	105	9	137	9	169	9	201	9	233	9
10	10	42	10	74	10	106	10	138	10	170	10	202	10	234	10
11	11	43	11	75	11	107	11	139	11	171	11	203	11	235	11
12	12	44	12	76	12	108	12	140	12	172	12	204	12	236	12
13	13	45	13	77	13	109	13	141	13	173	13	205	13	237	13
14	14	46	14	78	14	110	14	142	14	174	14	206	14	238	14
15	15	47	15	79	15	111	15	143	15	175	15	207	15	239	15
16	16	48	16	80	16	112	16	144	16	176	16	208	16	240	16
17	17	49	17	81	17	113	17	145	17	177	17	209	17	241	17
18	18	50	18	82	18	114	18	146	18	178	18	210	18	242	18
19	19	51	19	83	19	115	19	147	19	179	19	211	19	243	19
20	20	52	20	84	20	116	20	148	20	180	20	212	20	244	20
21	21	53	21	85	21	117	21	149	21	181	21	213	21	245	21
22	22	54	22	86	22	118	22	150	22	182	22	214	22	246	22
23	23	55	23	87	23	119	23	151	23	183	23	215	23	247	23
24	24	56	24	88	24	120	24	152	24	184	24	216	24	248	24
25	25	57	25	89	25	121	25	153	25	185	25	217	25	249	25
26	26	58	26	90	26	122	26	154	26	186	26	218	26	250	26
27	27	59	27	91	27	123	27	155	27	187	27	219	27	251	27
28	28	60	28	92	28	124	28	156	28	188	28	220	28	252	28
29	29	61	29	93	29	125	29	157	29	189	29	221	29	253	29
30	30	62	30	94	30	126	30	158	30	190	30	222	30	254	30
31	31	63	31	95	31	127	31	159	31	191	31	223	31	255	31
32	32	64	32	96	32	128	32	160	32	192	32	224	32	256	32

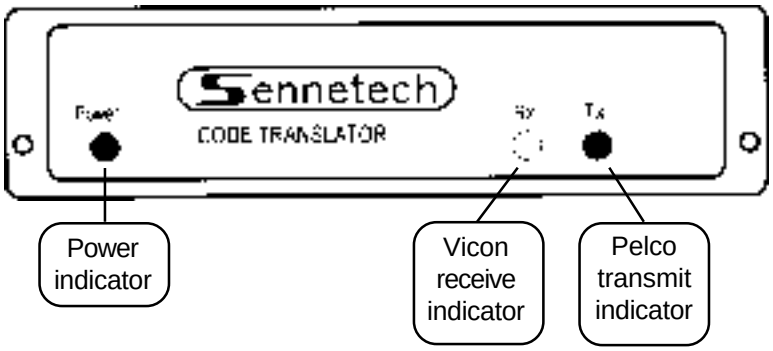
INSTALLATION

The The SCT-1020 code translator should be installed in the Vicon system as if it were a Vicon receiver, ie connect the input to Vicon cmd data line.

BACK PANEL



FRONT PANEL



The receive indicator should flash when Vicon code is present on the input. If the code is a camera control command for a camera in the address window, the transmit indicator should flash when the converted Pelco command is sent. Vicon systems "poll" the cameras periodically so the receive indicator will probably flash even when no camera is being controlled.

OPERATION

Operation of the SCT-1020 is transparent to the user. Vicon pan, tilt, zoom, focus, and iris commands are converted directly to the equivalent Pelco commands. For Vicon systems with variable speed capability, the pan and tilt speeds are matched with Pelco speeds.

Vicon "run" and "pgm" preset commands are converted to Pelco "goto" and "set" preset commands.

Pressing the Vicon "A/P" button will initiate auto scan for that camera.

Some high number Pelco pre-positions are converted to extended commands in the Pelco domes. For Vicon control systems that can send these pre-positions, they will be converted as follows.

STORING & RUNNING PATTERNS

Pelco domes can run stored patterns. These can be either a whole pattern or two independent halves. To store a pattern, set the Vicon controller to "pgm" and use preset 75, 76, or 77 to define the start. Then move the camera to define the pattern. When finished, use preset 78 to define the end.

Pgm preset 75	Define start of whole pattern
Pgm preset 76	Define start of 1st half pattern
Pgm preset 77	Define start of 2nd half pattern
Pgm preset 78	Define end of recorded pattern

To run the stored pattern, set the Vicon controller to "run" and use preset 75, 76, or 77.

Run preset 75	Run whole pattern
Run preset 76	Run 1st half pattern
Run preset 77	Run 2nd half pattern

SETTING SCAN LIMITS

Pgm preset 90	Set manual scan left limit
Pgm preset 91	Set manual scan right limit
Pgm preset 92	Set auto scan left limit
Pgm preset 93	Set auto scan right limit

ON-SCREEN PROGRAMMING MENU

Pgm preset 95	Activate Pelco on-screen programming menu (use tilt to navigate the menu and iris open to select options)

OTHER COMMANDS

Run preset 81 to 88	Alarm acknowledge 1 to 8
Run preset 89	Clear screen
Run preset 97	Initiate random scan
Run preset 98	Initiate frame scan

AUTO/MANUAL SCAN

Aux 1	Auto scan
Aux 2	Manual scan

CAMERA ON/OFF

Aux 3	Camera On
Aux 4	Camera Off

Note: if code translator is connected to a Pelco CM9760CXT configured for 15 bit code,

Run preset 80	Camera On
Run preset 81	Camera Off

FIXED SPEED VICON CONTROLLERS

Some older Vicon control systems do not have variable speed control capability. In this case, the code translator should be configured for a fixed speed Vicon controller (switch4-1 off). When a pan or tilt command is sent, a medium Pelco speed is assumed. The Aux 5 and 6 buttons can be used to modify the speed. While Aux 6 is pressed, the speed will be faster and while Aux 5 is pressed, the speed will be slower.

VICON CONTROLLERS WITH LIMITED PRESET CAPABILITY

If the controller is limited to presets 1 to 10, an alternate method is used to send some of the Pelco extended commands. First press the Vicon "lens speed" key. While holding the "lens speed" key, send the appropriate "run preset" command according to the following table.

Run preset 1	Run recorded pattern
Run preset 2	Define start of pattern for record
Run preset 3	Define end of recorded pattern
Run preset 4	Initiate random scan
Run preset 5	Activate Pelco on-screen programming menu (use tilt to navigate the menu and iris open to select options)
Run preset 6	Set manual scan left limit
Run preset 7	Set manual scan right limit
Run preset 8	Set auto scan left limit
Run preset 9	Set auto scan right limit
Run preset 10	Clear screen