



## **SCT-1022**

**CAMERA CONTROL CODE TRANSLATOR  
BOSCH BIPHASE to PELCO RS-422 Ver 3.0**

[www.sennetech.net](http://www.sennetech.net)

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## PRODUCT DESCRIPTION

The SCT-1022 is a Bosch to Pelco control code translator designed to permit control of Pelco cameras from Bosch Allegiant controllers. It receives Bosch biphasic format commands and transmits the appropriate commands in Pelco RS-422 format. There are four independent Pelco RS-422 outputs.

Internal configuration switches set the Pelco output code type, baud rate, parity and address groupings.

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

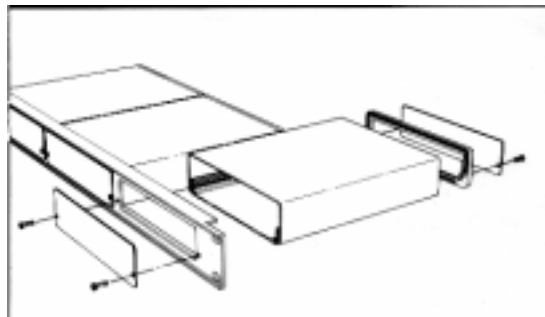
There is an optional 19" rack mount panel (one rack unit high).

Version 3.0 increases the number of address groups for Pelco group size of 32.

## SPECIFICATIONS

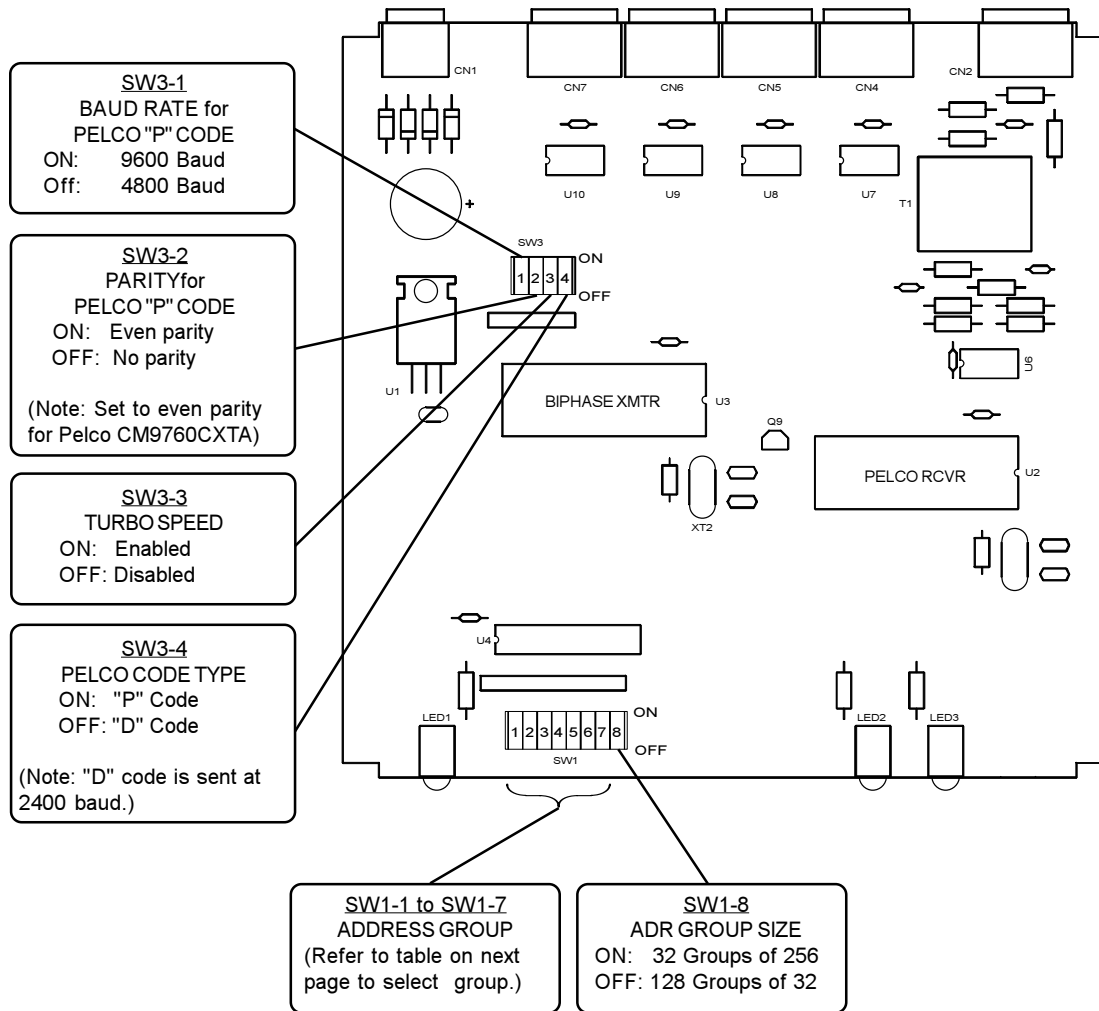
SIZE:	5.57"W x 1.52H x 5.45D
WEIGHT:	1.5 lb
POWER:	9Volt to 15Volt AC or DC at 75ma
INDICATORS:	Front panel LEDs: Power, Rx, & Tx,
BOSCH BIPHASE INPUT:	(1) mating 3-pin screw terminal connector
PELCO RS-422 OUTPUTS:	(4) mating 3-pin Screw terminal connectors

To install the case on the rack mount frame, remove the front panel and the plastic bezel. The rack mount frame takes the place of the bezel as shown below.



## SETTING THE SWITCHES

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



### Addressing notes:

Older Pelco devices receiving "P" code and the CM9760CXTA coaxitron code generator have a 32 address limit. For these devices, set SW1-8 OFF to select a group size of 32, then switches 1~7 select one of 128 address groups. One code translator is required for each group of 32 cameras.

Pelco receivers using "D" code can be addressed 1~255 and Pelco Spectra III domes can be addressed 1~256. For these devices set SW1-8 ON for group size of 256, then switches 1~5 select one of 32 address groups (switches 6 & 7 are ignored). One code translator is required for each group of 255 or 256 cameras.

SW1-1. to SW1-7 for Groups of 32

With 128 groups of size 32, it is possible to use Bosch camera addresses up to 4096. Each group is converted to Pelco addresses 1 to 32.

1	2	3	4	5	6	7	Addresses	1	2	3	4	5	6	7	Addresses
OFF	OFF	OFF	OFF	OFF	OFF	OFF	0001 ~ 0032	OFF	OFF	OFF	OFF	OFF	OFF	ON	2049 ~ 2080
ON	OFF	OFF	OFF	OFF	OFF	OFF	0033 ~ 0064	ON	OFF	OFF	OFF	OFF	OFF	ON	2081 ~ 2112
OFF	ON	OFF	OFF	OFF	OFF	OFF	0065 ~ 0096	OFF	ON	OFF	OFF	OFF	OFF	ON	2113 ~ 2144
ON	ON	OFF	OFF	OFF	OFF	OFF	0097 ~ 0128	ON	ON	OFF	OFF	OFF	OFF	ON	2145 ~ 2176
OFF	OFF	ON	OFF	OFF	OFF	OFF	0129 ~ 0160	OFF	OFF	ON	OFF	OFF	OFF	ON	2177 ~ 2208
ON	OFF	ON	OFF	OFF	OFF	OFF	0161 ~ 0192	ON	OFF	ON	OFF	OFF	OFF	ON	2209 ~ 2240
OFF	ON	ON	OFF	OFF	OFF	OFF	0193 ~ 0224	OFF	ON	ON	OFF	OFF	OFF	ON	2241 ~ 2272
ON	ON	ON	OFF	OFF	OFF	OFF	0225 ~ 0256	ON	ON	ON	OFF	OFF	OFF	ON	2273 ~ 2304
OFF	OFF	OFF	ON	OFF	OFF	OFF	0257 ~ 0288	OFF	OFF	OFF	ON	OFF	OFF	ON	2305 ~ 2336
ON	OFF	OFF	ON	OFF	OFF	OFF	0289 ~ 0320	ON	OFF	OFF	ON	OFF	OFF	ON	2337 ~ 2368
OFF	ON	OFF	ON	OFF	OFF	OFF	0321 ~ 0352	OFF	ON	OFF	ON	OFF	OFF	ON	2369 ~ 2400
ON	ON	OFF	ON	OFF	OFF	OFF	0353 ~ 0384	ON	ON	OFF	ON	OFF	OFF	ON	2401 ~ 2332
OFF	OFF	ON	ON	OFF	OFF	OFF	0385 ~ 0416	OFF	OFF	ON	ON	OFF	OFF	ON	2433 ~ 2464
ON	OFF	ON	ON	OFF	OFF	OFF	0417 ~ 0448	ON	OFF	ON	ON	OFF	OFF	ON	2465 ~ 2496
OFF	ON	ON	ON	OFF	OFF	OFF	0449 ~ 0480	OFF	ON	ON	ON	OFF	OFF	ON	2597 ~ 2528
ON	ON	ON	ON	OFF	OFF	OFF	0481 ~ 0512	ON	ON	ON	ON	OFF	OFF	ON	2529 ~ 2560
OFF	OFF	OFF	OFF	ON	OFF	OFF	0513 ~ 0544	OFF	OFF	OFF	OFF	ON	OFF	ON	2561 ~ 2592
ON	OFF	OFF	OFF	ON	OFF	OFF	0545 ~ 0576	ON	OFF	OFF	OFF	ON	OFF	ON	2593 ~ 2624
OFF	ON	OFF	OFF	ON	OFF	OFF	0577 ~ 0608	OFF	ON	OFF	OFF	ON	OFF	ON	2625 ~ 2656
ON	ON	OFF	OFF	ON	OFF	OFF	0609 ~ 0640	ON	ON	OFF	OFF	ON	OFF	ON	2657 ~ 2688
OFF	OFF	ON	OFF	ON	OFF	OFF	0641 ~ 0672	OFF	OFF	ON	OFF	ON	OFF	ON	2689 ~ 2720
ON	OFF	ON	OFF	ON	OFF	OFF	0673 ~ 0704	ON	OFF	ON	OFF	ON	OFF	ON	2721 ~ 2752
OFF	ON	ON	OFF	ON	OFF	OFF	0705 ~ 0736	OFF	ON	ON	OFF	ON	OFF	ON	2753 ~ 2784
ON	ON	ON	OFF	ON	OFF	OFF	0737 ~ 0768	ON	ON	ON	OFF	ON	OFF	ON	2785 ~ 2816
OFF	OFF	OFF	ON	ON	OFF	OFF	0769 ~ 0800	OFF	OFF	OFF	ON	ON	OFF	ON	2817 ~ 2848
ON	OFF	OFF	ON	ON	OFF	OFF	0801 ~ 0832	ON	OFF	OFF	ON	ON	OFF	ON	2849 ~ 2880
OFF	ON	OFF	ON	ON	OFF	OFF	0833 ~ 0864	OFF	ON	OFF	ON	ON	OFF	ON	2881 ~ 2912
ON	ON	OFF	ON	ON	OFF	OFF	0865 ~ 0896	ON	ON	OFF	ON	ON	OFF	ON	2913 ~ 2944
OFF	OFF	ON	ON	ON	OFF	OFF	0897 ~ 0928	OFF	OFF	ON	ON	ON	OFF	ON	2945 ~ 2976
ON	OFF	ON	ON	ON	OFF	OFF	0929 ~ 0960	ON	OFF	ON	ON	ON	OFF	ON	2977 ~ 3008
OFF	ON	ON	ON	ON	OFF	OFF	0961 ~ 0992	OFF	ON	ON	ON	ON	OFF	ON	3009 ~ 3040
ON	ON	ON	ON	ON	OFF	OFF	0993 ~ 1024	ON	ON	ON	ON	ON	OFF	ON	3041 ~ 3072
OFF	OFF	OFF	OFF	OFF	ON	OFF	1025 ~ 1056	OFF	OFF	OFF	OFF	OFF	ON	ON	3073 ~ 3104
ON	OFF	OFF	OFF	OFF	ON	OFF	1057 ~ 1088	ON	OFF	OFF	OFF	OFF	ON	ON	3105 ~ 3136
OFF	ON	OFF	OFF	OFF	ON	OFF	1089 ~ 1120	OFF	ON	OFF	OFF	OFF	ON	ON	3137 ~ 3168
ON	ON	OFF	OFF	OFF	ON	OFF	1121 ~ 1152	ON	ON	OFF	OFF	OFF	ON	ON	3169 ~ 3200
OFF	OFF	ON	OFF	OFF	ON	OFF	1153 ~ 1184	OFF	OFF	ON	OFF	OFF	ON	ON	3201 ~ 3232
ON	OFF	ON	OFF	OFF	ON	OFF	1185 ~ 1216	ON	OFF	ON	OFF	OFF	ON	ON	3233 ~ 3264
OFF	ON	ON	OFF	OFF	ON	OFF	1217 ~ 1248	OFF	ON	ON	OFF	OFF	ON	ON	3265 ~ 3296
ON	ON	ON	OFF	OFF	ON	OFF	1249 ~ 1280	ON	ON	ON	OFF	OFF	ON	ON	3297 ~ 3328
OFF	OFF	OFF	ON	OFF	ON	OFF	1281 ~ 1312	OFF	OFF	OFF	ON	OFF	ON	ON	3329 ~ 3360
ON	OFF	OFF	ON	OFF	ON	OFF	1313 ~ 1344	ON	OFF	OFF	ON	OFF	ON	ON	3361 ~ 3392
OFF	ON	OFF	ON	OFF	ON	OFF	1345 ~ 1376	OFF	ON	OFF	ON	OFF	ON	ON	3393 ~ 3424
ON	ON	OFF	ON	OFF	ON	OFF	1377 ~ 1408	ON	ON	OFF	ON	OFF	ON	ON	3425 ~ 3456
OFF	OFF	ON	ON	OFF	ON	OFF	1409 ~ 1440	OFF	OFF	ON	ON	OFF	ON	ON	3457 ~ 3488
ON	OFF	ON	ON	OFF	ON	OFF	1441 ~ 1472	ON	OFF	ON	ON	OFF	ON	ON	3489 ~ 3520
OFF	ON	ON	ON	OFF	ON	OFF	1473 ~ 1504	OFF	ON	ON	ON	OFF	ON	ON	3521 ~ 3552
ON	ON	ON	ON	OFF	ON	OFF	1505 ~ 1536	ON	ON	ON	ON	OFF	ON	ON	3553 ~ 3584
OFF	OFF	OFF	OFF	ON	ON	OFF	1537 ~ 1568	OFF	OFF	OFF	OFF	ON	ON	ON	3585 ~ 3616
ON	OFF	OFF	OFF	ON	ON	OFF	1569 ~ 1600	ON	OFF	OFF	OFF	ON	ON	ON	3617 ~ 3648
OFF	ON	OFF	OFF	ON	ON	OFF	1601 ~ 1632	OFF	ON	OFF	OFF	ON	ON	ON	3649 ~ 3680
ON	ON	OFF	OFF	ON	ON	OFF	1633 ~ 1664	ON	ON	OFF	OFF	ON	ON	ON	3681 ~ 3712
OFF	OFF	ON	OFF	ON	ON	OFF	1665 ~ 1696	OFF	OFF	ON	OFF	ON	ON	ON	3713 ~ 3744
ON	OFF	ON	OFF	ON	ON	OFF	1697 ~ 1728	ON	OFF	ON	OFF	ON	ON	ON	3745 ~ 3776
OFF	ON	ON	OFF	ON	ON	OFF	1729 ~ 1760	OFF	ON	ON	OFF	ON	ON	ON	3777 ~ 3808
ON	ON	ON	OFF	ON	ON	OFF	1761 ~ 1792	ON	ON	ON	OFF	ON	ON	ON	3809 ~ 3840
OFF	OFF	OFF	ON	ON	ON	OFF	1793 ~ 1824	OFF	OFF	OFF	ON	ON	ON	ON	3841 ~ 3872
ON	OFF	OFF	ON	ON	ON	OFF	1825 ~ 1856	ON	OFF	OFF	ON	ON	ON	ON	3873 ~ 3904
OFF	ON	OFF	ON	ON	ON	OFF	1857 ~ 1888	OFF	ON	OFF	ON	ON	ON	ON	3905 ~ 3936
ON	ON	OFF	ON	ON	ON	OFF	1889 ~ 1920	ON	ON	OFF	ON	ON	ON	ON	3937 ~ 3968
OFF	OFF	ON	ON	ON	ON	OFF	1921 ~ 1952	OFF	OFF	ON	ON	ON	ON	ON	3969 ~ 4000
ON	OFF	ON	ON	ON	ON	OFF	1953 ~ 1984	ON	OFF	ON	ON	ON	ON	ON	4001 ~ 4032
OFF	ON	ON	ON	ON	ON	OFF	1985 ~ 2016	OFF	ON	ON	ON	ON	ON	ON	4033 ~ 4064
ON	ON	ON	ON	ON	ON	OFF	2017 ~ 2048	ON	ON	ON	ON	ON	ON	ON	4065 ~ 4096

SW1-1. to SW1-5 for Groups of 256

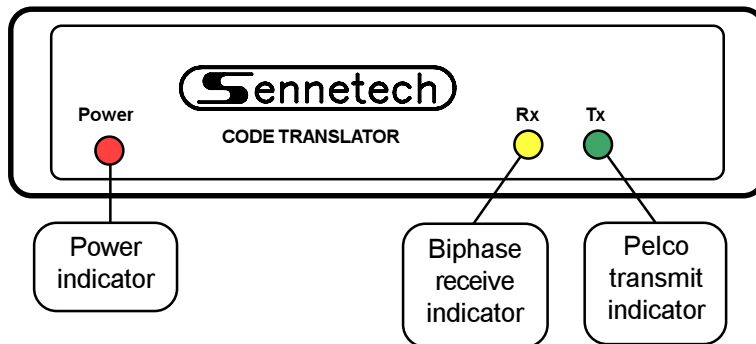
With 32 groups of size 256, it is possible to use Bosch camera addresses up to 8192. Each group is converted to Pelco addresses 1 to 256.

1	2	3	4	5	Addresses	1	2	3	4	5	Addresses
OFF	OFF	OFF	OFF	OFF	0001 ~ 0256	OFF	OFF	OFF	OFF	ON	4097 ~ 4352
ON	OFF	OFF	OFF	OFF	0257 ~ 0512	ON	OFF	OFF	OFF	ON	4353 ~ 4608
OFF	ON	OFF	OFF	OFF	0513 ~ 0768	OFF	ON	OFF	OFF	ON	4609 ~ 4864
ON	ON	OFF	OFF	OFF	0769 ~ 1024	ON	ON	OFF	OFF	ON	4865 ~ 5120
OFF	OFF	ON	OFF	OFF	1025 ~ 1280	OFF	OFF	ON	OFF	ON	5121 ~ 5376
ON	OFF	ON	OFF	OFF	1281 ~ 1536	ON	OFF	ON	OFF	ON	5377 ~ 5632
OFF	ON	ON	OFF	OFF	1537 ~ 1792	OFF	ON	ON	OFF	ON	5633 ~ 5888
ON	ON	ON	OFF	OFF	1793 ~ 2048	ON	ON	ON	OFF	ON	5889 ~ 6144
OFF	OFF	OFF	ON	OFF	2049 ~ 2304	OFF	OFF	OFF	ON	ON	6145 ~ 6400
ON	OFF	OFF	ON	OFF	2305 ~ 2560	ON	OFF	OFF	ON	ON	6401 ~ 6656
OFF	ON	OFF	ON	OFF	2561 ~ 2816	OFF	ON	OFF	ON	ON	6657 ~ 6912
ON	ON	OFF	ON	OFF	2817 ~ 3072	ON	ON	OFF	ON	ON	6913 ~ 7168
OFF	OFF	ON	ON	OFF	3073 ~ 3328	OFF	OFF	ON	ON	ON	7169 ~ 7424
ON	OFF	ON	ON	OFF	3329 ~ 3584	ON	OFF	ON	ON	ON	7425 ~ 7680
OFF	ON	ON	ON	OFF	3585 ~ 3840	OFF	ON	ON	ON	ON	7681 ~ 7936
ON	ON	ON	ON	OFF	3841 ~ 4096	ON	ON	ON	ON	ON	7937 ~ 8192

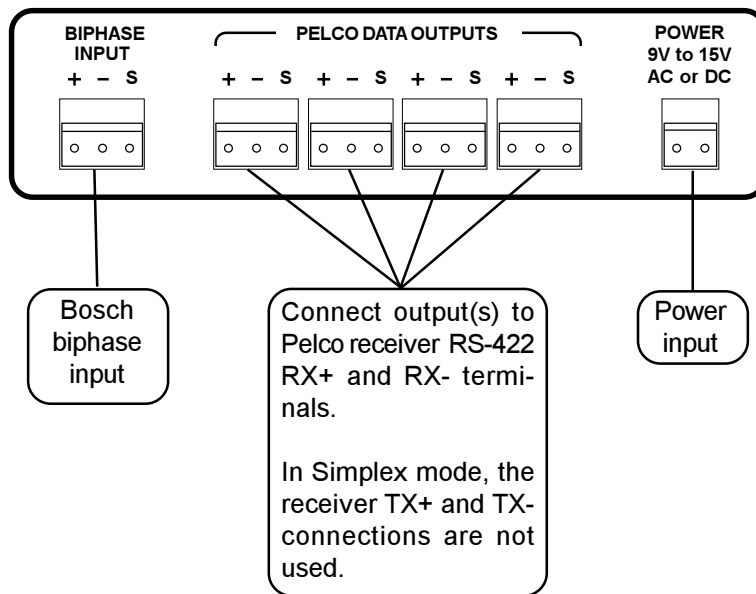
Note: Pelco "D" code address range is 1 to 255. When using "D" code, addresses 256, 512, 768, etc can not be used.

## INSTALLATION

### FRONT PANEL



### REAR PANEL



The Rx indicator will flash while biphase code is being received. Since Bosch code is repeating, it will flash continuously while a camera is being moved. Pelco code is sent only to start or stop an action or change a speed. The Tx indicator will flash only when a change is commanded.

If there is no Tx indication, check that the input is indeed Allegiant biphase code and that the input wires are not reversed.

If there is Rx but no Tx, possible causes are:

- The code is not camera control code.

- The command is to a camera that is not in the configured address group.

If the indicators show normal operation but the camera doesn't respond, possible causes are:

- Improper connections between the code translator and the camera.

- The camera is not set to the proper address.

- The output code type and baud rate does not match the camera settings.

## OPERATION

Bosch pan, tilt, zoom, focus, iris, pre-position and lower aux commands are converted to the equivalent Pelco commands. Higher aux commands are used to send Pelco extended commands according to the following table

<u>BOSCH COMMAND</u>	<u>PELCO COMMAND</u>
On /Off 1 to 8	On/Off 1 to 8
On/Off 20	Auto Focus On/Off
On/Off 21	Auto Iris On/Off
On/Off 22	AGC On/Off
On 30 to On 33	Zoom Motor Speed 1 to 4
On 34 to On 37	Focus Moter Speed 1 to 4
On 41 to On 48	Program Zone Start 1 to 8
Off 41 to Off 48	Program Zone End 1 to 8
On/Off 49	Zone Scan On/Off
On 50	Flip (Rotate 180 degrees)
On 60	Zero Pan Position
On 61 to On 68	Alarm Acknowledge 1 to 8
(Pelco's pattern can be recorded and run as either a full pattern or two halves.)	
On 71	Run 1st half pattern
On 72	Run 2nd half pattern
On 73	Run full pattern
On 81	Start Recoding 1st half pattern
On 82	Start Recoding 2nd half pattern
On 83	Start Recoding full pattern
Off 81	End 1st half pattern recording
Off 82	End 2nd half pattern recording
Off 83	End full pattern recording
(Pelco domes use high preset numbers for special functions)	
Set 91	Pgm Pset 91 (Set manual scan left limit)
Set 92	Pgm Pset 92 (Set manual scan right limit)
Set 93	Pgm Pset 93 (Set auto scan left limit)
Set 94	Pgm Pset 94 (Set auto scan right limit)
	(Note: Limits must be enabled via Dome Programming)
Set 95	Pgm Pset 95 Start Dome Program (Use Tilt to navigate the menu and Iris Open to select items.)
Shot 96	Pset 96 (Stop scan)
Shot 98	Pset 98 (Random scan)
Shot 98	Pset 98 (Frame scan)

