



SCT-1030

**CAMERA CONTROL CODE TRANSLATOR
PELCO RS-422 to BOSCH BIPHASE Ver. 2.4**

www.sennetech.net

Sennetech, Inc. 6455 W. Bath Rd. Perry, MI 48872 U.S.A. Ph (517) 675-1150 Fax (517) 675-1151

PRODUCT DESCRIPTION

The SCT-1030 is a Pelco to Bosch control code translator designed to permit control of Bosch cameras from Pelco controllers. It receives Pelco RS-422 commands and transmits the appropriate commands in Bosch biphasic format. There are four independent biphasic outputs.

Internal configuration switches set the code translator to work with either Pelco "D" code at 2400 baud only, or "P" code at either 4800 baud or 9600 baud. The biphasic output can be limited to fixed-speed-only commands for compatibility with older Burle receivers.

Bosch aux and preset commands up to 1023 can be sent using selected sequences of Pelco aux and preset commands.

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

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

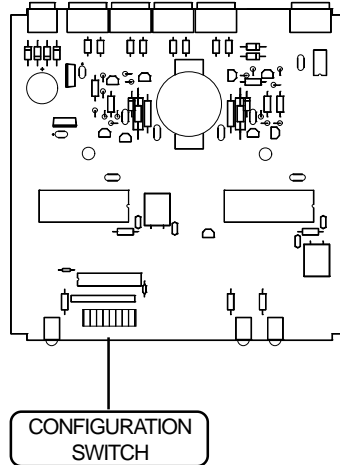
Version 2.4 adds address offset switches so Bosch camera address up to 2048 can be used.

SPECIFICATIONS

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

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 while the code translator is powered up and the new settings will take effect immediately.



SW1-1
BIPHASE CODE TYPE
 ON: VARIABLE SPEED
 OFF: FIXED SPEED

Set to ON if the receivers can accept variable speed biphas code
 Set to OFF for older receivers that only recognize fixed speed commands

SW1-2,1-3,1-4
BOSCH ADDRESS RANGE

SW2	SW3	SW4	ADDRESSES
Off	Off	Off	0001 ~ 0256
On	Off	Off	0257 ~ 0512
Off	On	Off	0513 ~ 0768
On	On	Off	0769 ~ 1024
Off	Off	On	1025 ~ 1280
On	Off	On	1281 ~ 1536
Off	On	On	1537 ~ 1792
On	On	On	1793 ~ 2048

SW1-7
"P" CODE BAUD RATE
 ON: 9600 BAUD
 OFF: 4800 BAUD
 This switch is ignored if SW1-8 is OFF.

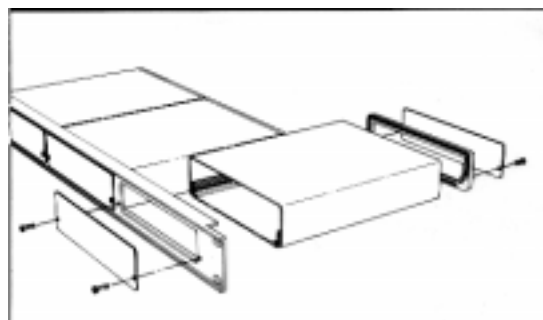
SW1-8
PELCO CODE TYPE
 ON: "P" CODE
 OFF: "D" CODE

Set to match the type of code from the Pelco control system

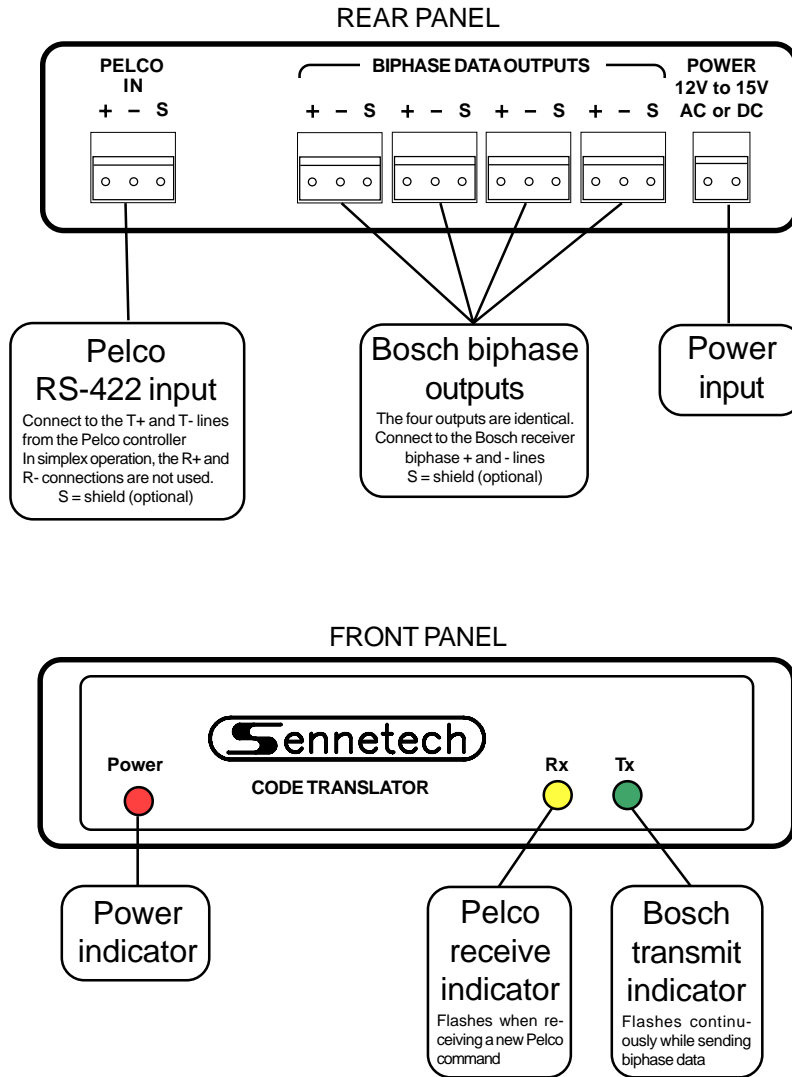
When setting up Pelco com ports to work with a code translator, configure the port the same as it would be for a Pelco dome.

For "P" code the parity can be either none or even.

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.



INSTALLATION



The Rx indicator will flash whenever there is data from the Pelco controller. If the input lines have reversed polarity, the Rx indicator will be on solidly. Biphasse code is repeating so the Tx indicator will continue to flash while the camera is moving.

If you have Rx but no Tx, possible causes are:

- The Pelco code is not camera control code.

- The code translator configuration does not match the code type from the Pelco controller.

Check the Pelco com port setup. If changes are made, you may have to cycle the power on the Pelco system before the changes become effective.

If the code translator is sending data and does not get a follow up Pelco command in about 12 seconds, it will time out and quit sending that stream of data.

OPERATION

Pelco Pan, Tilt, Zoom, Focus, and Iris commands are converted to the equivalent Bosch commands.

Pelco [Aux7][On] sends Bosch On 1, which Autodomes interpret as Autoscan without limits.

Pelco [Aux8][On] sends Bosch On 2, which Autodomes interpret as Autopan between limits.

Pelco [Program Pattern] sends Bosch On 100:	Record A
Pelco [Stop Programming] sends Bosch Off 100:	End Recording A
Pelco [Run Pattern] sends Bosch On 50:	Repeat Recorded sequence A

Version 2.0 differs from earlier versions in sending preset and aux commands. Preset and aux numbers up to 1023 can be sent. Since Pelco supports 99 presets and 8 aux commands, an alternate method is used to send these high numbers.

Pelco [Pgm Preset] & [Preset] correspond to Bosch Set & Shot commands.

Preset Commands

The first 99 preset commands can be commanded directly from the Pelco keyboard. To send higher numbers, a base number is first stored in memory, then a number from 1~99 is added to that base number to determine the actual preset number.

The base numbers are multiples of 100 or odd multiples of 50.

To store a base number, press and release [Aux4] and then follow with a [Preset] or [Pgm Preset] [40~59] using the following table.

[Preset][41] stores 100	[Preset][50] stores 50
[Preset][42] stores 200	[Preset][51] stores 150
[Preset][43] stores 300	[Preset][52] stores 250
[Preset][44] stores 400	[Preset][53] stores 350
[Preset][45] stores 500	[Preset][54] stores 450
[Preset][46] stores 600	[Preset][55] stores 550
[Preset][47] stores 700	[Preset][56] stores 650
[Preset][48] stores 800	[Preset][57] stores 750
[Preset][49] stores 900	[Preset][58] stores 850
	[Preset][59] stores 950

If any command other than one from the table is sent following [Aux4], no number is stored.

Once a base number is stored, if the very next command to that camera is [Preset] or [Pgm Preset] [1~99], that number will immediately be added to the base number and sent. At this point, the base number is cleared so the entire process must be restarted to send another high preset.

Example:

To send the Bosch Set 100 command, use the following sequence:

[Aux4]	(Prepare to store a base number)
[Preset][50]	(Store the base number 50)
[Pgm Preset][50]	(Send the Bosch Set 100 command <50+50>)

To send the Bosch Shot 999 command, use the following sequence:

[Aux4]	(Prepare to store a base number)
[Preset][59]	(Store the base number 950)
[Preset][49]	(Send the Bosch Shot 999 command <950+49>)

Auxiliary Commands

Because Pelco has only eight Aux commands, they are not used to send Bosch On/Off commands directly. First an Aux# must be stored. Then pressing [Aux1] will send Off# and pressing [Aux2] will send On#. The Pelco Aux keys may be programmed to alternate Aux On & Aux Off commands each time the key is pressed, or they may send Aux On when pressed & Aux Off when released. The code translator will accept either, just press and release each time.

To store an Aux# number, press [Aux3] followed by [Preset][1~99]. The preset number will be stored and that is the number that will be sent by pressing [Aux1] or [Aux2]. If no aux number has been stored, no commands will be sent. The aux number will stay in memory as long as only [Aux1] or [Aux2] is sent to that camera. If any other command is sent to that camera, the stored aux number will be cleared.

Example:

To send the Bosch On or Off 14 command (used by Autodomes to change autopan speed),

[Aux3]	(Prepare to store an aux number)
[Preset][14]	(Store the aux number 14)
[Aux2]	(Send the Bosch On 14 command - increase speed)
[Aux1]	(Send the Bosch Off 14 command - decrease speed)

(These commands can be repeated until the aux number is cleared.)

Auxiliary Commands Above 99

The above method works for numbers up to 99. For higher numbers, a base number can first be stored, which will be added to the Preset number to determine the stored aux number. The base number is stored the same way as it is for high presets, i.e. [Aux4] plus [Preset][1~99]. Then press [Aux3] to signal the code translator that the ensuing [Preset][1~99] is storing an aux number rather than sending a high preset number.

Example:

To send the Bosch On or Off 900 command,

[Aux4]	(Prepare to store a base number)
[Preset][58]	(Store the base number 850)
[Aux3]	(Prepare to store an aux number)
[Preset][50]	(Store the aux number 900 <850+50>)
[Aux2]	(Send the Bosch On 900 command)
[Aux1]	(Send the Bosch Off 900 command)

(These commands can be repeated until the aux number is cleared.)

These stored numbers are only applied to commands for the camera address that stored the number. If a base number has been stored for Camera 23, for example, any other camera can be sent a normal preset.

Only one aux number is stored at a time. If an operator has stored an aux number for Camera 23, for example, and then another operator sends the storing sequence for Camera 7, the aux number for Camera 23 is cleared and a new one is stored for Camera 7.

For Bosch functions that use Aux numbers to change values, the key may have to be pressed repeatedly. If the Tx indicator does not flash when an [Aux1] or [Aux2] command is sent, there is no aux number stored for that camera number.

To summarize, press [Aux4] to store a base number for high values. Press [Aux3] to store an Aux#, then follow with [Aux1] to send Bosch Off# and [Aux2] to send Bosch On#.

