



SCT-1029

**CAMERA CONTROL CODE TRANSLATOR
PELCO RS-422 to DIAMOND RS-422 Ver 1.5**

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PRODUCT DESCRIPTION

The SCT-1029 is a Pelco to Diamond Electronics control code translator designed to permit control of Diamond cameras from Pelco controllers. It receives Pelco RS-422 commands and transmits the appropriate commands in Diamond Electronics RS-422 format. There are four independent Diamond outputs.

Internal configuration switches set the code translator to work with either Pelco "D" code or "P" code at 4800 baud or 9600 baud. The Diamond output code is sent @ 9600 baud.

A programming mode is used to program older Diamond domes using the dome on-screen menus.

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

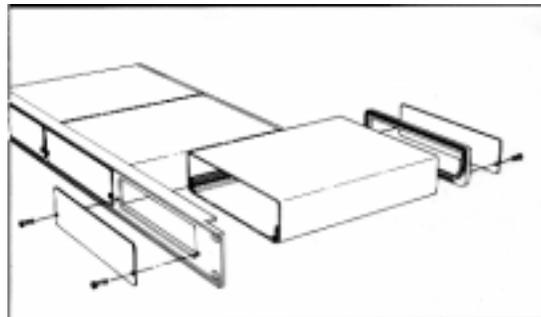
Version 1.5 adds two "reduced speed" configuration switches for KD6 domes set for high rotational speeds.

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 INPUT:	(1) mating 3-pin screw terminal connector
DIAMOND OUTPUT:	(4) mating 3-pin screw terminal connectors

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

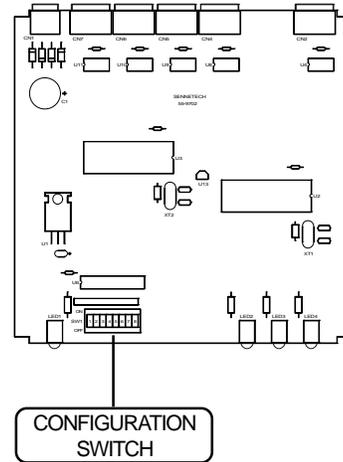
To install the case on the rack mount frame, remove the front panel and the plastic bezel. The rack mount frame takes the place of the bezel as shown below.



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



SW1-5
PROGRAMMING MODE
 ON: DIRECT PP MODE
 OFF: PSET 99 MODE

Set to ON if installing KD6 domes configured to work with Maxpro controllers. In this situation, all the preset commands are converted directly and programming mode is not available.

Set to OFF if programming mode is required to send the programming commands for SmartScan domes or KD6 domes configured to work with Diamond controllers.

SW1-7
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.



SW1-1 & 1-2
REDUCED SPEEDS

OFF OFF: Normal speed
 ON OFF: 1/2 speed
 OFF ON: 1/3 speed
 ON ON: 1/4 speed

Some KD6 domes are set for very high rotational speeds. If the control system can not send the necessary commands to access the dome menus to reduce the speeds, these switches will configure the code translator to send slower pan and tilt speeds.

SW1-6
AUTO IRIS COMMANDS
 ON: ENABLED
 OFF: DISABLED

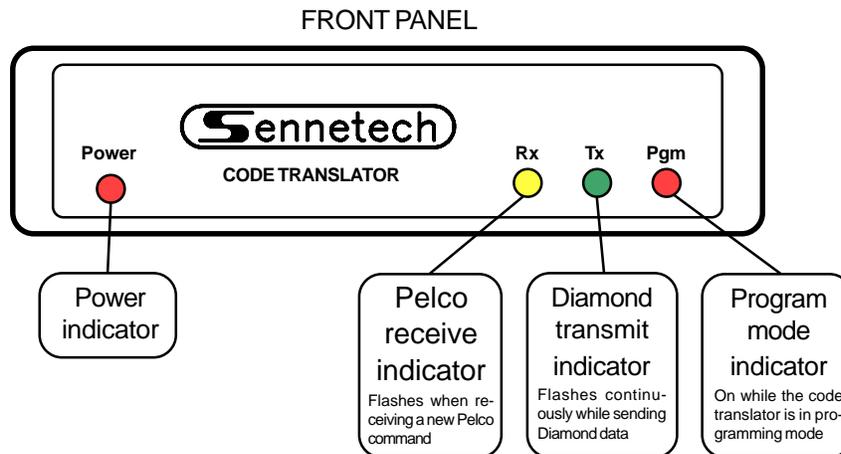
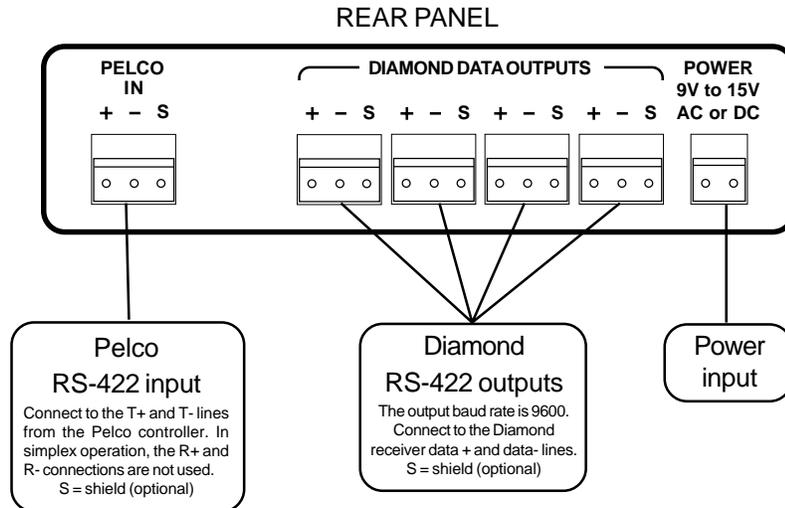
Some Diamond receivers require the auto iris status bits to be sent continuously along with the pan, tilt, zoom, and focus. If this switch is ON, the operator can set the code translator to send these bits globally or individually.

When auto iris is set to Global On, the auto iris bits will be sent to each camera as it is being controlled. An individual camera address can be set to the opposite of the global setting.

SW1-8
"P" CODE BAUD RATE
 ON: 9600 BAUD
 OFF: 4800 BAUD

This switch is ignored if SW1-7 is OFF.

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. Diamond data 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 incoming Pelco code is not camera control code.
- The code translator configuration does not match the Pelco code.

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

Pan, Tilt, Zoom, Focus, and Iris commands are converted directly.

Aux commands:

Pelco command

AUX ON [1 to 8]
AUX OFF [1 to 8]

Diamond command

AUX (1 to 8) ON
AUX (1 to 8) OFF

Preset commands:

If configuration Switch 1-5 is ON, Pelco preset commands are converted directly to the same Diamond commands. If the switch is OFF, presets above 69 are converted as follows.

Goto Preset [70 to 85]	Run Vectorscan (0 to 15)
Program Preset [94]	Set Global Auto Iris ON
Goto Preset [94]	Set Global Auto Iris OFF
Program Preset [95]	Set Individual Auto Iris ON
Goto Preset [95]	Set Individual Auto Iris OFF
Program Preset [96]	Set Camera ID Display ON
Goto Preset [96]	Set Camera ID Display OFF
Program Preset [97]	Set Azimuth Display ON
Goto Preset [97]	Set Azimuth Display OFF

Programming Mode:

Note: If configuration Switch 1-5 is ON, programming mode is not available.

Program Preset [99]	Start Programming Mode
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(Note: To prevent inadvertent activation, this command must be sent twice in succession. The front panel PGM indicator will be illuminated while in programming mode.)

Goto Preset 99	Exit/Cancel Programming Mode
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When programming mode is active, the pan, tilt, zoom, focus, and iris will work normally, but the Goto Preset commands will have different functions.

Goto Preset 1	Escape (Used in menus to abort, back up one step, or exit.)
Goto Preset 2	Initialize Dome / Find Home Position

The following commands will bring up the on-screen menus in the Diamond domes. Use the Dome Programming Table on the next page to send numbers and characters.

Goto Preset 3	Display Main Menu
Goto Preset 4	Display Goto Preshot Menu
Goto Preset 5	Display List Preshots Menu / Next page
Goto Preset 6	Display Program Preshot Menu
Goto Preset 7	Display Run Vectorscan Once Menu
Goto Preset 8	Display Run Vectorscan Continuously Menu
Goto Preset 9	Display List Vectorscan Files Menu / Next page
Goto Preset 10	Display List Vectorscan File Contents Menu / Next page
Goto Preset 11	Display Program Vectorscan Files Menu
Goto Preset 12	Display List Sectors Menu
Goto Preset 13	Display Program Sector IDs Menu

DOME PROGRAMMING

The Diamond SmartScan Domes have on-screen menus and titling that are normally programmed using a computer-style keyboard. When the code translator is put into programming mode, Pelco Goto Preset commands are used to generate the same (ASCII) codes that a keyboard would send. The following table shows the keycode that is sent for each Goto Preset command while in programming mode.

<u>Pelco cmd</u>	<u>Computer Key</u>	<u>Pelco cmd</u>	<u>Computer Key</u>	<u>Pelco cmd</u>	<u>Computer Key</u>
Goto pset 15	BACKSPACE	Goto pset 46	'	Goto pset 72	A
Goto pset 20	ENTER	Goto pset 47	(Goto pset 73	B
Goto pset 21		Goto pset 48)	Goto pset 74	C
Goto pset 22		Goto pset 49	*	Goto pset 75	D
Goto pset 23	DELETE	Goto pset 50	+	Goto pset 76	E
Goto pset 24	INSERT	Goto pset 51	,	Goto pset 77	F
Goto pset 25		Goto pset 52	-	Goto pset 78	G
Goto pset 26		Goto pset 53	.	Goto pset 79	H
Goto pset 27		Goto pset 54	/	Goto pset 80	I
Goto pset 28		Goto pset 55	0	Goto pset 81	J
Goto pset 29		Goto pset 56	1	Goto pset 82	K
Goto pset 30		Goto pset 57	2	Goto pset 83	L
Goto pset 31		Goto pset 58	3	Goto pset 84	M
Goto pset 32		Goto pset 59	4	Goto pset 85	N
Goto pset 33		Goto pset 60	5	Goto pset 86	O
Goto pset 34		Goto pset 61	6	Goto pset 87	P
Goto pset 35	RIGHTARROW	Goto pset 62	7	Goto pset 88	Q
Goto pset 36	LEFTARROW	Goto pset 63	8	Goto pset 89	R
Goto pset 37	UPARROW	Goto pset 64	9	Goto pset 90	S
Goto pset 38	DOWNARROW	Goto pset 65	:	Goto pset 91	T
Goto pset 39	SPACE BAR	Goto pset 66	;	Goto pset 92	U
Goto pset 40	!	Goto pset 67	<	Goto pset 93	V
Goto pset 41	"	Goto pset 68	=	Goto pset 94	W
Goto pset 42	#	Goto pset 69	>	Goto pset 95	X
Goto pset 43	\$	Goto pset 70	?	Goto pset 96	Y
Goto pset 44	%	Goto pset 71	@	Goto pset 97	Z
Goto pset 45	&				

Examples:

To send the code for the "A" key, send the Pelco Goto Pset 72 command.

To send the code for the "3" key, send the Pelco Goto Pset 58 command.

To send the code for the "Enter" key, send the Pelco Goto Pset 20 command.

When the menu gives "Enter" as an option, that is the computer "Enter" key (Goto Pset 20 on the Pelco controller), not the Pelco controller's [Enter] key.

If the on-screen menu does not give a number or letter option to finish, use the Diamond escape code (Goto Pset 1). Remember to send Goto Preset 99 to take the code translator out of programming mode when you are finished with the menus.

Programming Example:

To change a KD6 rotational speed with configuration Switch 1-5 OFF (Diamond Mode)
(Note: This will work if dome is configured for Diamond or Maxpro code.):

<u>Pelco command</u>	<u>Diamond command - Action</u>
Pgm Preset 99	Send once to prepare code translator for programming
Pgm Preset 99	Send again to put code translator into programming mode (PGM indicator will light up)
Preset 03	Activate Dome's Main Menu - shows list of items
Preset 58	Sends ASCII 3 - selects Control Options
Preset 59	Sends ASCII 4 - Manual Speed Toggles to a new speed each time
Preset 01	Sends ASCII ESC - exits this menu
Preset 01	Sends ASCII ESC - exits dome main menu
Preset 99	Cancels code translator programming mode to return to normal operation - PGM indicator turns off

To change a KD6 rotational speed with configuration Switch 1-5 ON for Maxpro Mode
(Note: The dome must also be configured for Maxpro code.):

<u>Pelco command</u>	<u>KD6 Dome - Action</u>
Preset 90	Activates Domes Main Menu Use Tilt to navigate down to "Scan Setup."
Iris Open	Select item with flashing cursor Use Tilt to navigate down to "Manual Speed."
Iris Open	Toggles through available speeds Use Tilt to navigate down to "Exit."
Iris Open	Returns to previous menu Use Tilt to navigate down to "Exit."
Iris Open	Exits dome programming menu

