



SCT-1041

**CAMERA CONTROL CODE TRANSLATOR
VICON RS-422 TO DIAMOND RS-422 Ver. 1.2**

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PRODUCT DESCRIPTION

The SCT-1041 is a Vicon to Diamond Electronics control code translator designed to permit control of Diamond cameras from Vicon controllers. It receives Vicon 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 fixed or variable speed capable Vicon controllers. The Diamond output code is sent at 9600 baud.

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

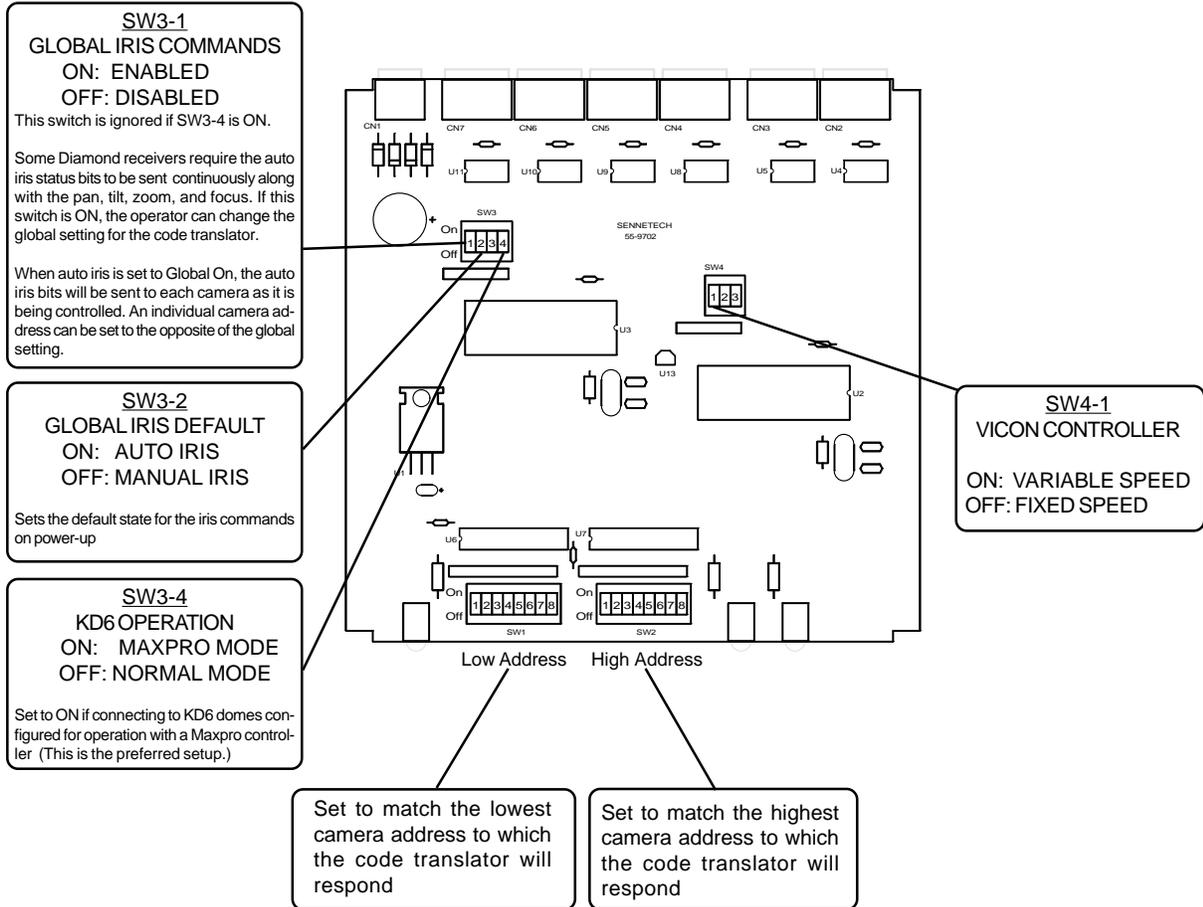
There is an optional 19" rack mount panel (one rack unit high).

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
VICON DATA IN:	(1) mating 3-pin screw terminal connector
VICON RSP OUT:	(1) mating 3-pin screw terminal connector
DIAMOND DATA 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.



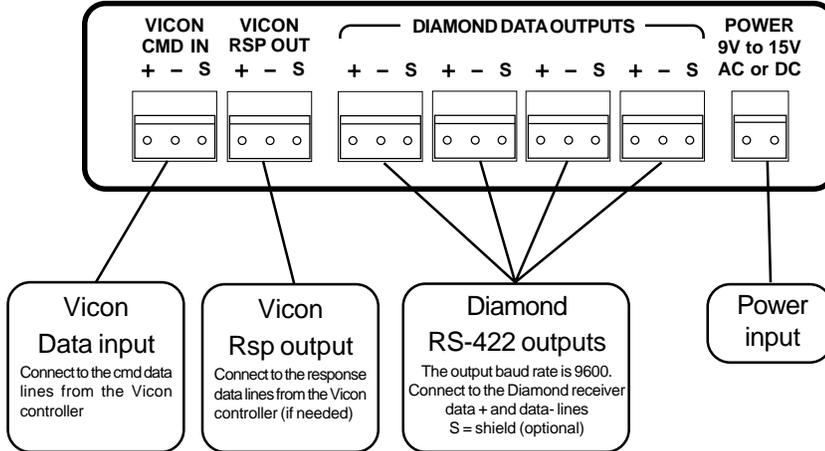
The preferred method of operation is simplex mode, with only the Vicon cmd data line connected.

If the Vicon response line is connected for duplex operation, 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 exclude any Vicon camera addresses.

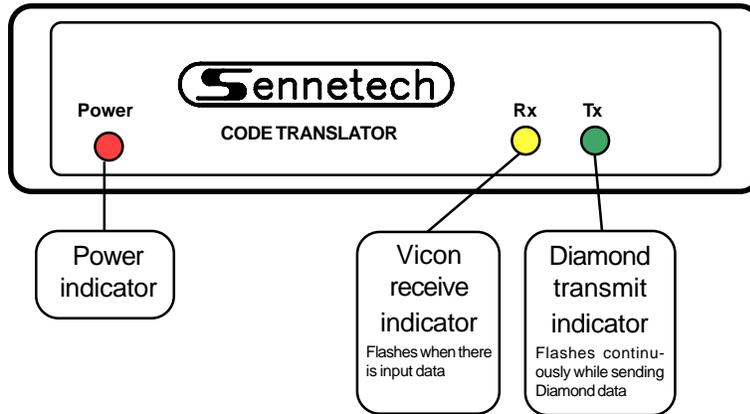
Note: If the Vicon control system is operating in simplex mode and does not require the response line, the address switches can be set to the maximum range.

INSTALLATION

REAR PANEL



FRONT PANEL



The Rx indicator will flash whenever there is data from the Vicon 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 Vicon code sent to the translator is not camera control code.

- The camera address is outside the address window set by the configuration switches.

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

OPERATION

Vicon Pan, Tilt, Zoom, Focus, Iris commands, and Pre-positions [1] to [99] are converted directly to the equivalent Diamond commands.

If SW3-4 is ON (KD6 Maxpro mode), Vicon Run Pset and Pgm Pset commands [1] to [99] are converted directly to equivalent Diamond Preshot commands.

This is the preferred setting as it greatly simplifies bringing up on-screen programming menus in the KD6.

If SW3-4 is OFF, refer to the programming instructions on the following page.

Aux functions:

The Vicon [Aux] keys are converted according to the following table.

<u>Vicon Command</u>	<u>Diamond Command</u>
[Aux1]	Aux 1 Off
[Aux2]	Aux 2 Off
[Aux3]	Aux 3 Off

<u>Vicon Command</u>	<u>Diamond Command</u>
[Aux4]	Aux 1 On
[Aux5]	Aux 2 On
[Aux6]	Aux 3 On

OPERATION WITH SW3-4 OFF

If SW3-4 is OFF, Pre-positions [1~69] are converted directly to the equivalent Diamond commands.

Higher Pre-positions are converted according to the following table.

Vicon Recall #	Diamond Command	Vicon Store #	Diamond Command
[70] to [85]	Run Vectorscan 0 to 15		
[94]	Set Global Auto Iris Off	[94]	Set Global Auto Iris On
[95]	Set Individual Auto Iris Off	[95]	Set Individual Auto Iris On
[96]	Set Camera ID Display Off	[96]	Set Camera ID Display On
[97]	Set Azimuth Display Off	[97]	Set Azimuth Display On

Diamond On-screen Programming Menus.

To activate the Diamond on-screen menus, first press the Vicon [L/S] (Lens Speed) key, and then follow with the appropriate recall preset number. The [L/S] key must be pressed each time, or a standard Diamond Goto Preshot command will be sent instead.

Use the ASCII CONVERSION TABLE on the next page to send numbers and characters.

Vicon Recall #	Diamond Command
[1]	Escape - Used in some menus to abort, back up one step, or exit
[2]	Initialize Dome / Find Home Position
[3]	Display Goto Preshot Menu
[4]	Display List Preshots Menu / Next page
[5]	Display Program Preshot Menu
[6]	Display Run Vectorscan Once Menu
[7]	Display Run Vectorscan Continuously Menu
[8]	Display List Vectorscan Files Menu / Next page
[9]	Display List Vectorscan File contents Menu / Next page
[10]	Display Program Vectorscan Files Menu
[11]	Display List Sectors Menu
[12]	Display Program Sector IDs Menu
[13]	Display Main Menu

ASCII CONVERSION TABLE

The Diamond SmartScan Domes have on-screen menus and titling that are normally programmed using a computer style keyboard. The following commands, if preceded by the Vicon [L/S] key, are used to generate the same (ASCII) codes that a keyboard would send.

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

Examples:

To send the code for the "A" key, press [L/S] [Recall 71].

To send the code for the "3" key, press [L/S] [Recall 58].

To send the code for the "Enter" key, press [L/S] [Recall 20].

If the on-screen menu does not give a number or letter option to finish, use the Diamond escape code [L/S] [Recall 1]. When the menu gives "Enter" as an option, that is the computer "Enter" key, [L/S] [Recall 20] on the Vicon controller, not the Vicon controller [Enter] key.

