Sennetech

SCT-1079
CAMERA CONTROL CODE TRANSLATOR
SENSORMATIC RS-422 to VCL RS-485 Ver. 1.0

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PRODUCT DESCRIPTION

The SCT-1079 is a Sensormatic RS-422 to VCL RS-485 camera control code translator for control of VCL cameras from Sensormatic controllers. It receives Sensormatic RS-422 commands and transmits the appropriate commands in VCL RS-485 code format.

Input and response are Sensormatic RS-422 at 4800 baud.

VCL RS-485 output is at 9600 baud.
There are four independent outputs.

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

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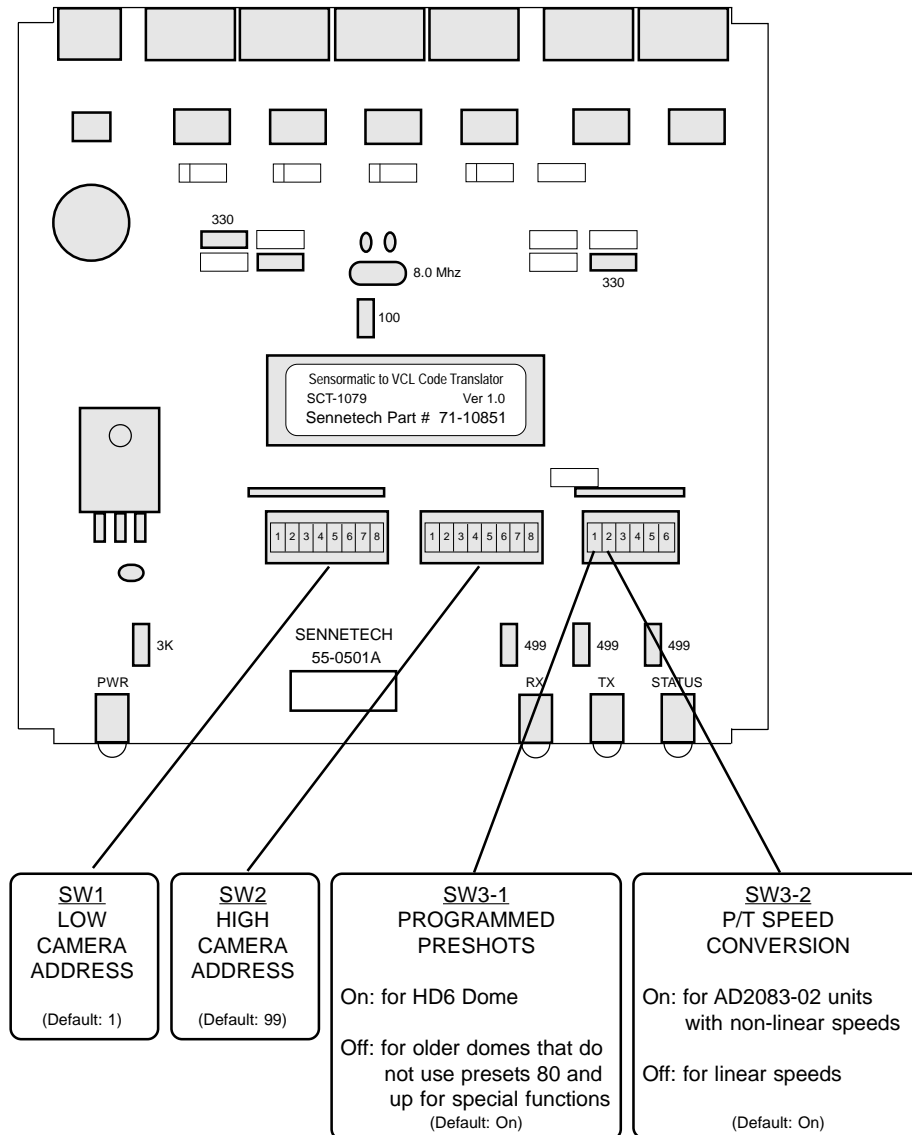
SPECIFICATIONS

SIZE:	19"W x 1.75H x 5.45D
WEIGHT:	1.5 lbs.
POWER:	9Volt to 18Volt AC or DC at .75 Watts
INDICATORS:	Front panel LEDs: Power, Rx, Tx, and Status
SENSORMATIC RS-422 INPUT:	(1) 3-pin mating screw terminal connector
SENSORMATIC RS-422 RESPONSE:	(1) 3-pin mating screw terminal connector
VCL RS-485 OUTPUTS:	(4) 3-pin mating 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.
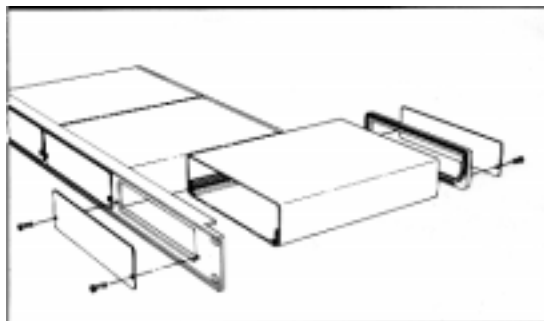
SETTING THE SWITCHES

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

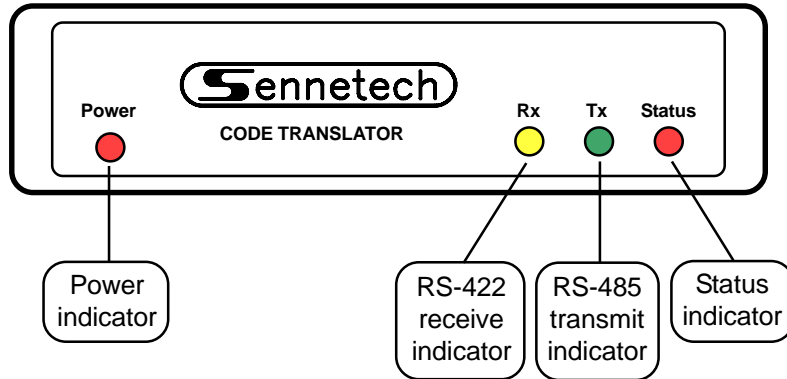| SW1 LOW CAMERA ADDRESS	SW2 HIGH CAMERA ADDRESS	SW3-1 PROGRAMMED PRESHOTS	SW3-2 P/T SPEED CONVERSION
(Default: 1)	(Default: 99)	On: for HD6 Dome Off: for older domes that do not use presets 80 and up for special functions (Default: On)	On: for AD2083-02 units with non-linear speeds Off: for linear speeds (Default: On)

The code translator will send responses and translate code only for the group of camera numbers set by the lowest and highest camera address switches.
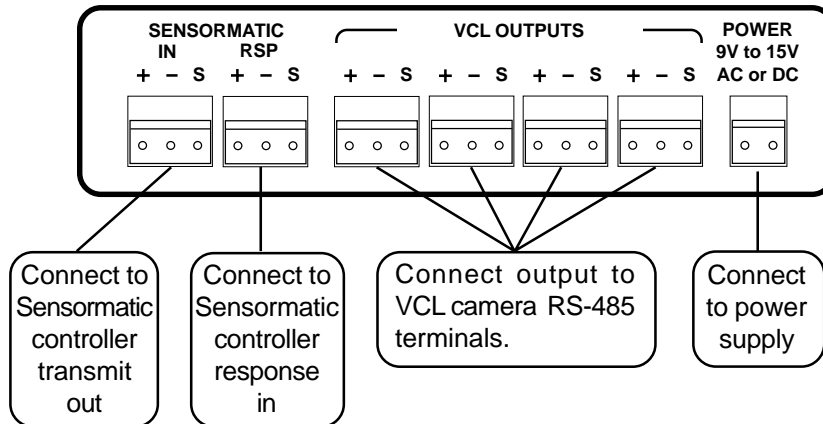
The switches should be set to exclude the addresses of any Sensormatic cameras in the system in order to avoid a conflict on the response lines.

CAMERA ADDRESS SWITCH SETTING CHART

◼ -ON
☐ -OFF

256	064	128	192
001	065	129	193
002	066	130	194
003	067	131	195
004	068	132	196
005	069	133	197
006	070	134	198
007	071	135	199
008	072	136	200
009	073	137	201
010	074	138	202
011	075	139	203
012	076	140	204
013	077	141	205
014	078	142	206
015	079	143	207
016	080	144	208
017	081	145	209
018	082	146	210
019	083	147	211
020	084	148	212
021	085	149	213
022	086	150	214
023	087	151	215
024	088	152	216
025	089	153	217
026	090	154	218
027	091	155	219
028	092	156	220
029	093	157	221
030	094	158	222
031	095	159	223
032	096	160	224
033	097	161	225
034	098	162	226
035	099	163	227
036	100	164	228
037	101	165	229
038	102	166	230
039	103	167	231
040	104	168	232
041	105	169	233
042	106	170	234
043	107	171	235
044	108	172	236
045	109	173	237
046	110	174	238
047	111	175	239
048	112	176	240
049	113	177	241
050	114	178	242
051	115	179	243
052	116	180	244
053	117	181	245
054	118	182	246
055	119	183	247
056	120	184	248
057	121	185	249
058	122	186	250
059	123	187	251
060	124	188	252
061	125	189	253
062	126	190	254
063	127	191	255

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INSTALLATION

FRONT PANEL

Power   **Sennetech**   **Rx**   **Tx**   **Status**

CODE TRANSLATOR

Power indicator

RS-422 receive indicator

RS-485 transmit indicator

Status indicator

REAR PANEL

SENSORMATIC IN   RSP   VCL OUTPUTS   POWER 9V to 15V AC or DC

+ − S   + − S   + − S   + − S   + − S   + − S

Connect to Sensormatic controller transmit out

Connect to Sensormatic controller response in

Connect output to VCL camera RS-485 terminals.

Connect to power supply

Note: The response lines are not required for use with AD2083-02C translators. They are required for use with earlier versions of AD2083-02 translators.

The Rx LED will light when there is any data on the input lines.

The Status LED will flash if the input data is not recognized as valid Sensormatic data. If it is on constantly, the input wires are probably reversed.

The Tx LED flashes when VCL output code is being sent.

PTZ

The code translator converts Sensormatic Pan, Tilt, Zoom, Focus, and Iris commands directly into VCL commands.

AD2083-02 translators send non-linear Pan and Tilt speeds. If Switch 3-2 is ON, the code translator compensates for this non-linearity. The factory default highest Pan speed for HD6 domes is 400 degrees per second. Using the Dome Setup Menu, this can be reduced to 100 degrees per second for better operator control.

Additional commands are converted according to the following table.

	SENSORMATIC COMMAND	**VCL COMMAND**
Presets	Program Shot	Program Preshot
	Call Shot	Go to Preshot

Note: The number of available presets varies with the type of Sensormatic controller.

With an AD2083-02C, there are 60 presets.

AD2083-02B and earlier versions do not send the normal commands that store the presets in the dome. Instead, they request positional data from the dome and store it internally.

When it receives a Request Position command, the code translator sends a Program Preset command to the dome and then sends a response back to the AD2083 with that preset number embedded in the response. There is no way to tell which preset number the operator used, so the number of the preset stored in the dome does not necessarily match the number that the operator sent from the keyboard. The first time, the code translator will send Program Preset 1, the next time will be Preset 2, and so on up to Preset 7, after which it will start over with 1 again. When the controller sends the Goto Position command, the embedded preset number is recovered.

The code translator's Status indicator will flash the number of the preset when this method is used to program and call presets.

Patterns	Define Pattern 1, 2, or 3.	Program PTZ Tour 1, 2, or 3
	Save New Pattern	Terminate PTZ Tour Programming

Note: Sensormatic control systems switch to fixed speed control when they send the Define Pattern command. They revert back to variable speed when the End Pattern command is sent. To program a PTZ tour with variable speed, follow the Define Pattern command with the End Pattern command. Then at the end of the tour, send the Save New Pattern command.

	Run Pattern 1, 2, or 3	Run PTZ Tour 1, 2, or 3

VectorScans

VectorScans must be programmed using the Dome Setup Menu.

	Repeat or Goto Pattern 1, 2, or 3	Start VectorScan 1, 2, or 3

Auto Iris	Iris Open + Iris Close	Auto Iris

Dome Setup Menu

In a Sensormatic system, multiple keystrokes are required to activate the configuration menu. Press and hold Iris Open, press and hold Focus Near or Focus Far, and then press Zoom Out.

While the menu is displayed, use the Tilt control to navigate.

	Iris Open:	Select or Advance to Next Highlighted Menu
	Iris Close:	Exit or Return to Previous Menu

AD2083-02 translators have a lookup table for special Sensormatic Dome functions.
The following table lists how those are converted for HD6 Domes (SW3-1 set to ON)

Keyboard Cmd	AD Description	VCL Command	VCL Description
Call Shot 66	Reset Iris	Auto Iris	Auto Iris
Call Shot 67	Flip	Turn 180 degrees	Turn 180 degrees
Call Shot 70	Run Pattern 1	Preshot 80	Run PTZ Tour 1
Call Shot 71	Run Pattern 2	Preshot 81	Run PTZ Tour 2
Call Shot 72	Run Pattern 3	Preshot 82	Run PTZ Tour 3

(Precede Call Shot 70~72 command with Call Shot 69 to send Run Vectorscan instead)

Keyboard Cmd	AD Description	VCL Command	VCL Description
Pgm Shot 70	Define Pattern 1	Preshot 83	Program PTZ Tour 1
Pgm Shot 71	Define Pattern 2	Preshot 84	Program PTZ Tour 2
Pgm Shot 72	Define Pattern 3	Preshot 85	Program PTZ Tour 3
Pgm Shot 68	End Pattern (Not converted - use this to return control to variable speed mode)		
Pgm Shot 69	Save Pattern	Preshot 86	End PTZ Programming
Pgm Shot 66	Dome Menu	Preshot 90	Camera Setup Menu
Pgm Shot 65	Reset Dome	Preshot 98	Camera Reset

If SW3-1 is set to OFF, the Pattern commands are handled differently.

Keyboard Cmd	AD Description	VCL Command	VCL Description
Call Shot 66	Reset Iris	Auto Iris	Auto Iris
Call Shot 67	Flip	Turn 180 degrees	Turn 180 degrees
Call Shot 70	Run Pattern 1	Run Tour 1	Run Preset Tour 1
Call Shot 71	Run Pattern 2	Run Tour 2	Run Preset Tour 2
Call Shot 72	Run Pattern 3	Run Tour 3	Run Preset Tour 3

In a preset tour, the dome repeats a pattern of stored presets. To program a tour, a Define Tour Start command is sent to the dome. This is followed by sending tour point data commands, which contain a preset number, the movement speed to that preset, and the dwell time at that preset. When the list is complete, a Define Tour Stop command is sent. This can only be done if the Sensormatic control system can send extended preset numbers (1 ~ 60).

Pgm Shot 70	Define Pattern 1	Define Tour 1 start	Dome is Ready for Tour Point Data
Pgm Shot 71	Define Pattern 2	Define Tour 2 start	Dome is Ready for Tour Point Data
Pgm Shot 72	Define Pattern 3	Define Tour 3 start	Dome is Ready for Tour Point Data

The code translator is now also ready to send tour point data. Sensormatic Call Shot 41 ~ 49 commands will be converted to VCL tour point data for presets 1 ~9 along with a stored dwell time and speed. Default dwell time is 10 seconds and the default speed is 4 on a scale of 1 to 8. The stored dwell time and speed can be changed.

Call shot 1 ~ 30	Set stored dwell time from 1 to 30 seconds
Call shot 31~ 38	Set stored speed in range from 1 to 8

Pgm Shot 69	Save Pattern	Define Tour Stop	End Tour Programming

Note: While sending tour point data, only Call Shot commands are used. If any other command is sent, the code translator will revert to normal operation.

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