SCT-1077

CAMERA CONTROL CODE TRANSLATOR
SENSORMATIC RS-422 to DIAMOND RS-422 Ver. 1.3

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PRODUCT DESCRIPTION

The SCT-1077 is a Sensormatic RS-422 to Diamond RS-422 camera control code translator designed to permit control of Diamond or Ultrak cameras from Sensormatic controllers. It receives Sensormatic RS-422 commands and transmits the appropriate commands in Diamond RS-422 code format.

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

The output is switch-selectable for either Diamond RS-422 at 9600 E81 protocol or MUX100 RS-422 at 19.2k E81. 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).

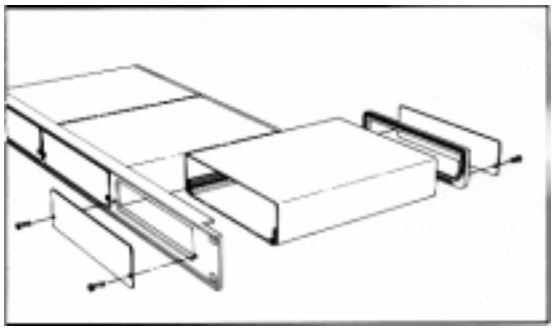
Version 1.2 adds a configuration switch for pan and tilt non-linear speed compensation.
It also supports presets up to 96 and Diamond camera menus.

Version 1.3 fixes a jerky motion problem from version 1.2.

SPECIFICATIONS

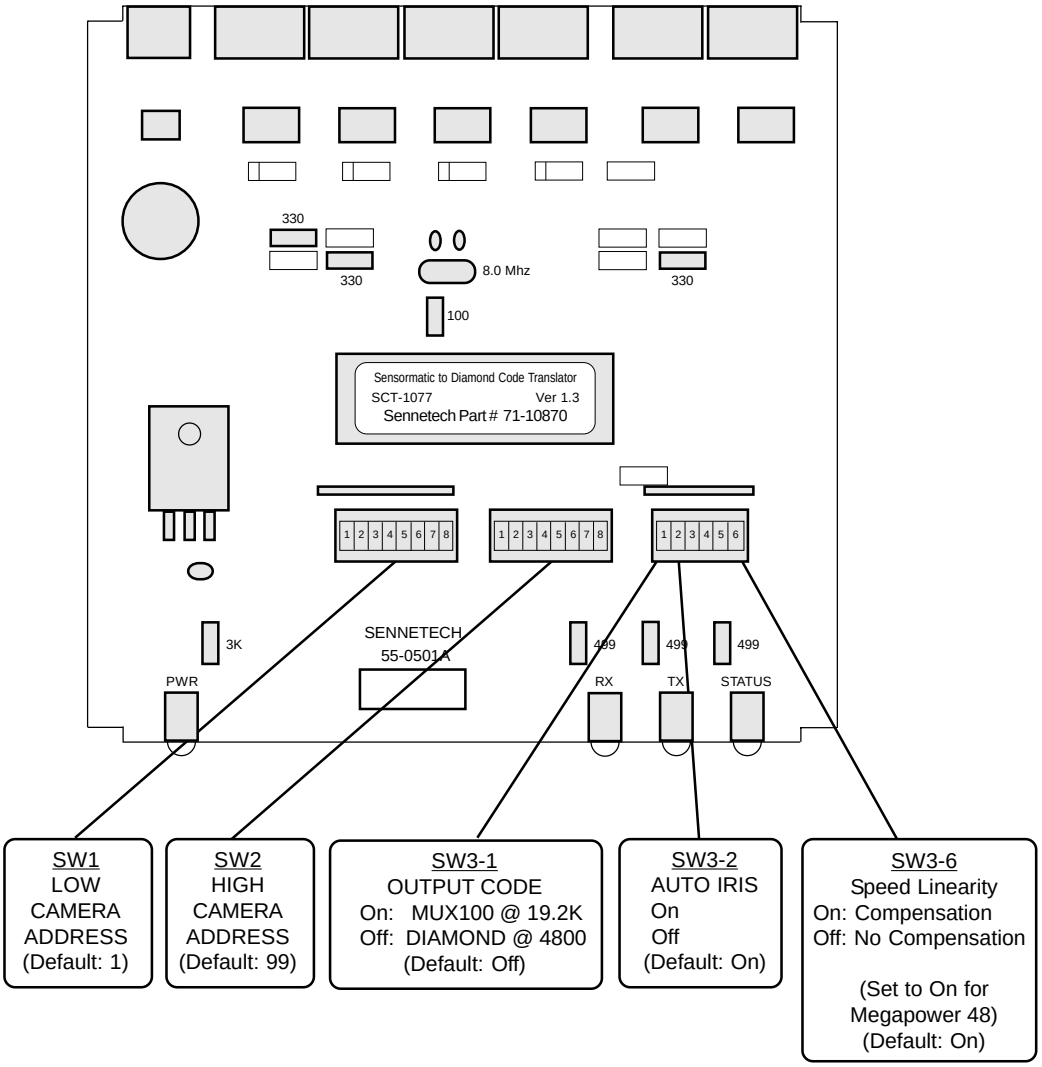
SIZE:	19"W x 1.75H x 5.45D
WEIGHT:	1.5 lbs
POWER:	9Volt to 18Volt AC or DC at .75 Watts
INDICATORS:	Front panel LEDs: Power, Rx, Tx, and Status
SENSORMATIC RS-422 INPUT:	(1) 3-pin mating screw terminal connector
SENSORMATIC RS-422 RESPONSE:	(1) 3-pin mating screw terminal connector
DIAMOND RS-422 OUTPUTS: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



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.

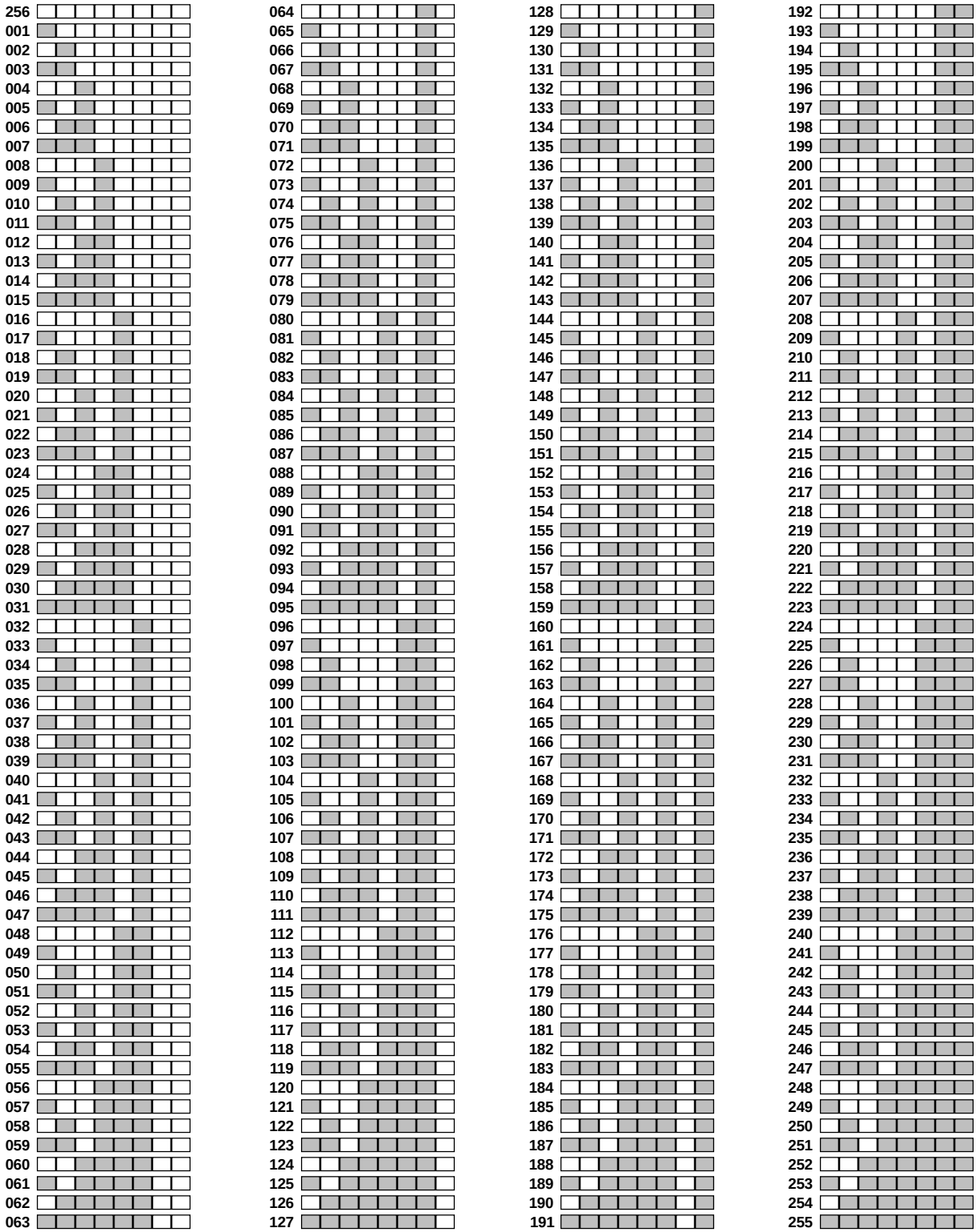
The switches should be set to exclude the addresses of any Sensormatic cameras in the system in order to avoid a conflict on the response lines.

AUTO IRIS NOTE:
For Diamond Smartscan Domes, Auto Iris is managed by the controller. Sending both Iris Open & Iris Close with every telemetry packet keeps the Dome in Auto Iris mode. If SW3-2 is ON, the code translator will send these Iris commands with each packet. If SW3-2 if OFF, the camera will be in Manual Iris mode. This does not apply to Ultrak KD6 Domes set for Maxpro mode.

Version 1.2 adds a configuration switch to compensate for the non-linear Sensormatic RS-422 speed control from some American Dynamics control systems, such as a Megapower 48. When SW3-6 is OFF, there is no compensaton. When it is ON, there is a compensation to make the result more linear.

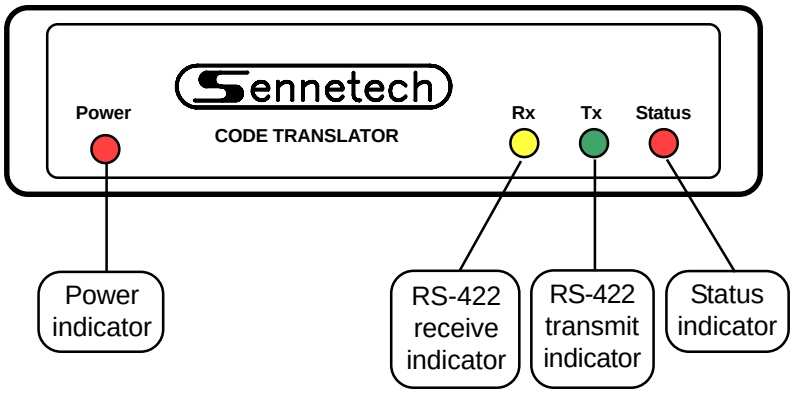
CAMERA ADDRESS SWITCH SETTING CHART

■ -ON
□ -OFF

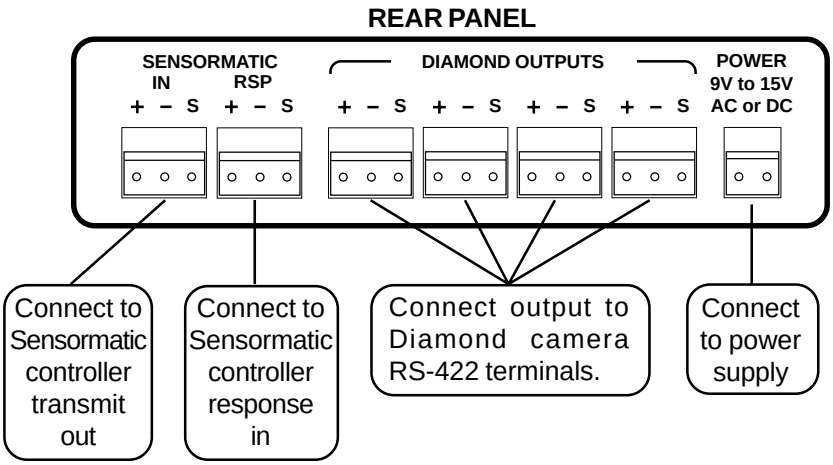


INSTALLATION

FRONT PANEL



REAR PANEL



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

The Status LED has two functions. It will flash if the input data is not recognized as valid Sensormatic data. If it is on constantly, the input wires are probably reversed. It also flashes to show the preset number for handling the old-type preset commands.

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

If connecting to Ultrak KD6 or Honeywell HD6 domes, set them for Maxpro mode.

OPERATION

PTZ

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

Presets

From a control system sending Sensormatic Quick View commands that store the presets in the dome:

Define Quick View 1~7	Program Preshot 1~7
Quick View 1~7	Go to Preshot 1~7

Some systems, such as an AD2083-02 or VM96 matrix, store preset values in the controller. To define a view, the contoller requests position data from the dome and sends Goto Absolute Position commands to display that view.

When a position request is sent, the code translator sends a Diamond Program Preshot command and also responds to the controller with the preshot number encoded in the position data. The code translator can store seven preshots for each camera. It will start with number one and advance to the next number each time it receives another position request. After reaching seven, it will start over at number one. The Status indicator will flash to show which preshot number is being applied.

When the controller sends a Goto Absolute Position command for a preshot programmed in this manner, the code translator can recover the preshot number and send a Diamond Goto Preshot command.

Starting with Version 1.2, Sensormatic multiple-byte Preset commands are supported for presets up to 96. To support AD2083-02C units that have a maximum preset number of 60, the code translator adds 40 to all received preset commands from 38 to 59 so that higher numbered Preset commands can be sent.

Ultrak KD6 and Honeywell HD6 domes configured for Maxpro protocol use high presets for special functions.

Preset 80	Run PTZ Tour 1	
Preset 81	Run PTZ Tour 2	
Preset 82	Run PTZ Tour 3	
Preset 83	Program PTZ Tour 1	
Preset 84	Program PTZ Tour 2	
Preset 85	Program PTZ Tour 3	
Preset 86	Terminate PTZ Tour Programming	
Preset 87	Start VectorScan 1	
Preset 88	Start VectorScan 2	
Preset 89	Start VectorScan 3	
Preset 90	Setup the Scan & Camera	(Use Tilt to navigate menu and Iris Open to make selections.)
Preset 91	Toggles the Error Table Display	
Preset 92	Toggles Auto Exposure On/Off	
Preset 93	Toggles Backlight Compensation On/Off	
Preset 94	Toggles between Standard and Nightshot Mode	
Preset 95	Toggles between Freeze and Unfreeze Video	

(Presets 40 ~ 55 will also work for the above list.)

For old Diamond protocol, camera menus are accessed by pressing Shift+F1 from a computer keyboard plugged into the Diamond joystick controller. The displayed menu presents a list of numerical options selected by pressing the number keys. Pressing the ESC key backs out of the menus.

Sending Sensormatic Preset 79 sends the Shift+F1 code to the camera to bring up the Main Menu and puts the code translator into a menu mode. Sending Sensormatic presets 1~ 9 will now send the equivalent of a computer keyboard's number keys 1 ~ 9. Preset 78 sends a single ESC code to go back to the previous menu. Sending anything other than preset 1 ~ 9 or 78 will exit from the menu.

Example: Changing the dome's speed settings

Preset 39 or 79	Displays options 1 ~ 6 plus ESC
Preset 3	Selects option 3 "Control Options"
Preset 4	Toggles through speed setting of 400, 200, & 100 degrees/sec.
Preset 38 or 78	Returns to previous menu
Any Command	Escapes from the menu back to normal operation

Costar Domes configured for Diamond Protocol will also respond to the Preset 79 command and display an on-screen menu. Use Tilt to navigate and Pan to select choices.