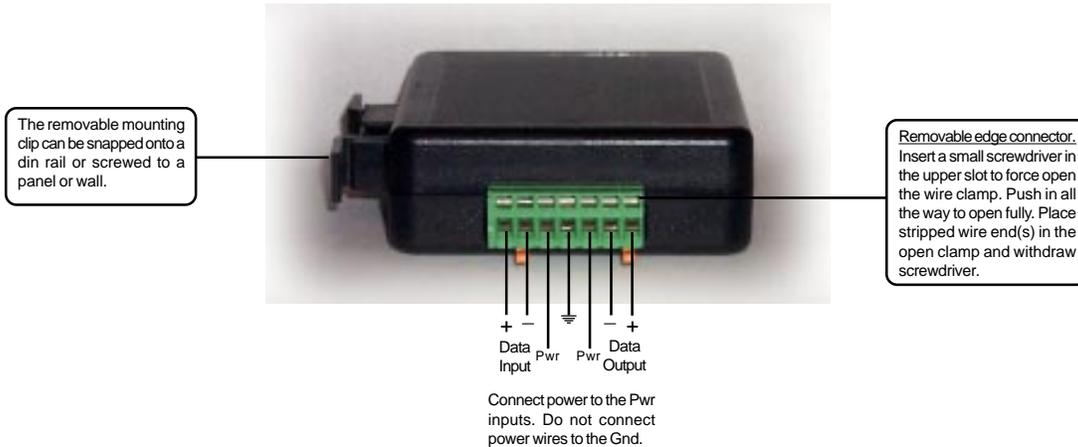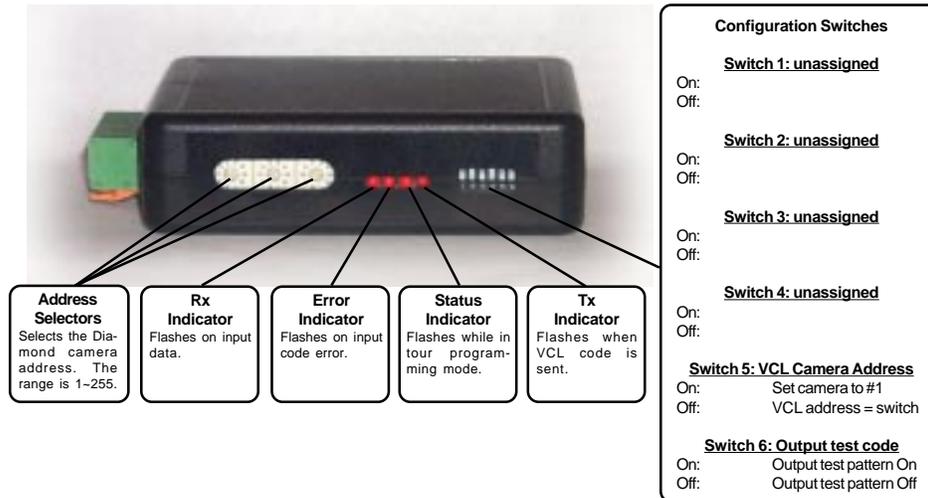# SCT-100-DIAMOND-VCL
Diamond RS-422 to VCL RS-485 Code Translator

The code translator Diamond RS-422 camera control code into VCL- RS-485 code for a single P/T/Z. Only camera commands for the address matching the Address Selector switches will be converted.

The address conversion rolls over at 128, Diamond address 129 is converted to VCL address 1.

A test mode sends a continuous square movement pattern to the P/T/Z so the wiring and addressing between the translator and the P/T/Z can be checked without a Diamond controller.

Configuration Switches

Switch 1: unassigned
On:
Off:

Switch 2: unassigned
On:
Off:

Switch 3: unassigned
On:
Off:

Switch 4: unassigned
On:
Off:

Switch 5: VCL Camera Address
On: Set camera to #1
Off: VCL address = switch

Switch 6: Output test code
On: Output test pattern On
Off: Output test pattern Off

Address Selectors
Selects the Diamond camera address. The range is 1~255.

Rx Indicator
Flashes on input data.

Error Indicator
Flashes on input code error.

Status Indicator
Flashes while in tour programming mode.

Tx Indicator
Flashes when VCL code is sent.

The removable mounting clip can be snapped onto a din rail or screwed to a panel or wall.

Removable edge connector. Insert a small screwdriver in the upper slot to force open the wire clamp. Push in all the way to open fully. Place stripped wire end(s) in the open clamp and withdraw screwdriver.

+ −   − +
Data   Pwr Pwr Data
Input   Output

Connect power to the Pwr inputs. Do not connect power wires to the Gnd.

SPECIFICATIONS

Size: 4.5" x 3.5" x 1.25"
Weight: 0.5 lb
Power: 9Volt to15 Volt AC or DC at 75ma
Environmental: Indoor use only

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Addressing
Only camera control code for the camera number set by the Address Switches is converted.

If switch 5 is ON. the output code is always addressed to camera #1. Otherwise, the output code address is determined by the Address Switches. The highest possible VCL address is 128. The output addresses are rolled over at multiples of 128. Thus, 129 is converted to 1, 130 is converted to 2, etc.

Indicators
The **Rx** LED will flash when any data is detected on the input
The **Error** LED will flash if the input data is not recognized as Diamond code.
The **Status** LED will flash while the code translator is in VCL tour programming mode.
The **Tx** LED flashes when VCL code is sent.

OPERATION

PTZ
The code translator converts pan, tilt, zoom, focus, and iris code directly.

Presets
Diamond Preshot and Pgm Preshot (1~99) are converted to VCL Seek Preset and Define Preset (1~99).

Auxilary (Off & On)
Except as listed below, Diamond Off and On commands are converted to VCL numbered Aux Off & On.

Other commands are converted according to the following table.

Diamond Command	VCL Command	Diamond Command	VCL Command
Aux 2 Off	Autopan Off	Aux 2 On	Autopan On
Aux 3 Off	Auto Iris Off	Aux 3 On	Auto Iris On
Aux 4 Off	Auto Focus Off	Aux 4 On	Auto Focus On
Aux 5 Off	Wash Off	Aux 5 On	Wash On
Aux 6 Off	Wipe Off	Aux 6 On	Wipe On
Aux 7 Off	Automatic mono/color	Aux 7 On	Toggle mono/color

Tours

On 51, 52, or 53	Run Tour 1, 2, or 3		
Run Vscan 1, 2, or 3	Run Tour 1, 2, or 3		
On 61, 62, or 63	Define Tour Start 1, 2, or 3	Off 61, 62, 63	Define tour stop

VCL tours consist of a list of presets combined with a speed to that preset and a dwell time at that preset. To progam a tour, send Diamond [On 61], [On 62], or [On 63]. The code translator sends the VCL define tour start command, the Status LED starts flashing indicating it is in tour programming mode, and the default speed of 30 degrees/second and dwell time of 60 seconds is loaded.

Each time a Preshot (1-99) command is received, a VCL store tour point data command is send which includes that preset number, the speed to that preset, and the dwell time at that preset.
The speed or dwell time can be changed at any time during tour programming using the following commands.

On 1~99	Speed = 1~98 degrees/sec (On 99 = max speed)
Off 1~127	Dwell time = 1~127 seconds.

To end programming, send any pan, tilt, zoom, focus, or iris command. The VCL define tour stop command is sent and the code translator returns to normal operation.

Note: If the VCL dome is in define tour mode, it will not respond to any other commands. If for some reason it doesn't get the define tour stop command, it can't be controlled. Use [Off 61], [Off 62], or [Off 63] to resend the define tour stop command to regain control of the dome.