

**Sennetech**

**SCM-800-PELCO**

**EIGHT INPUT CODE MERGER for  
PELCO RS-422 CAMERA CONTROL CODE**

[www.sennetech.net](http://www.sennetech.net)

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## PRODUCT DESCRIPTION

The SCM-800-Pelco is an eight input code merger for Pelco RS-422 camera control code.

Each input will automatically detect the type of code it is receiving, ("P" or "D") at baud rates from 2400 to 19,200 baud.

The data output can be set for Pelco "D" code N81, Pelco "P" code N81, or Pelco "P" code E81, at baud rates from 2400 to 9600 baud.

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).

### Upgrades:

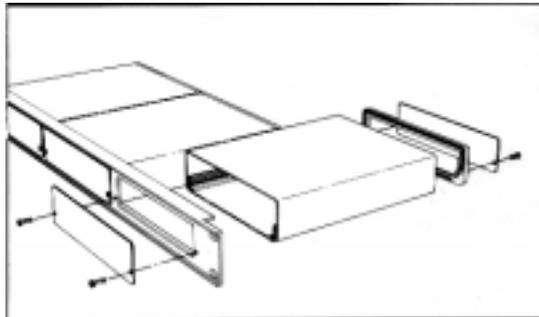
Version 1.1 starting with serial numbers 1030 fixes a focus & iris problem with input #2 when output is set to P code.

Version 1.2 starting with serial numbers 1180 fixes a problem with focus far commands when receiving Pelco P code.

## SPECIFICATIONS

Size:	19"W x 1.75H x 5.45D
Weight:	1.5 lb
Power:	9Volt to 15Volt AC or DC at 180ma.
Indicators:	Front panel LEDs: Power, Rx, Tx, and Status
RS-422 inputs:	(8) 2-pin mating screw terminal
RS-422 output:	(1) 1-pin mating screw terminal
Environmental	Indoor use

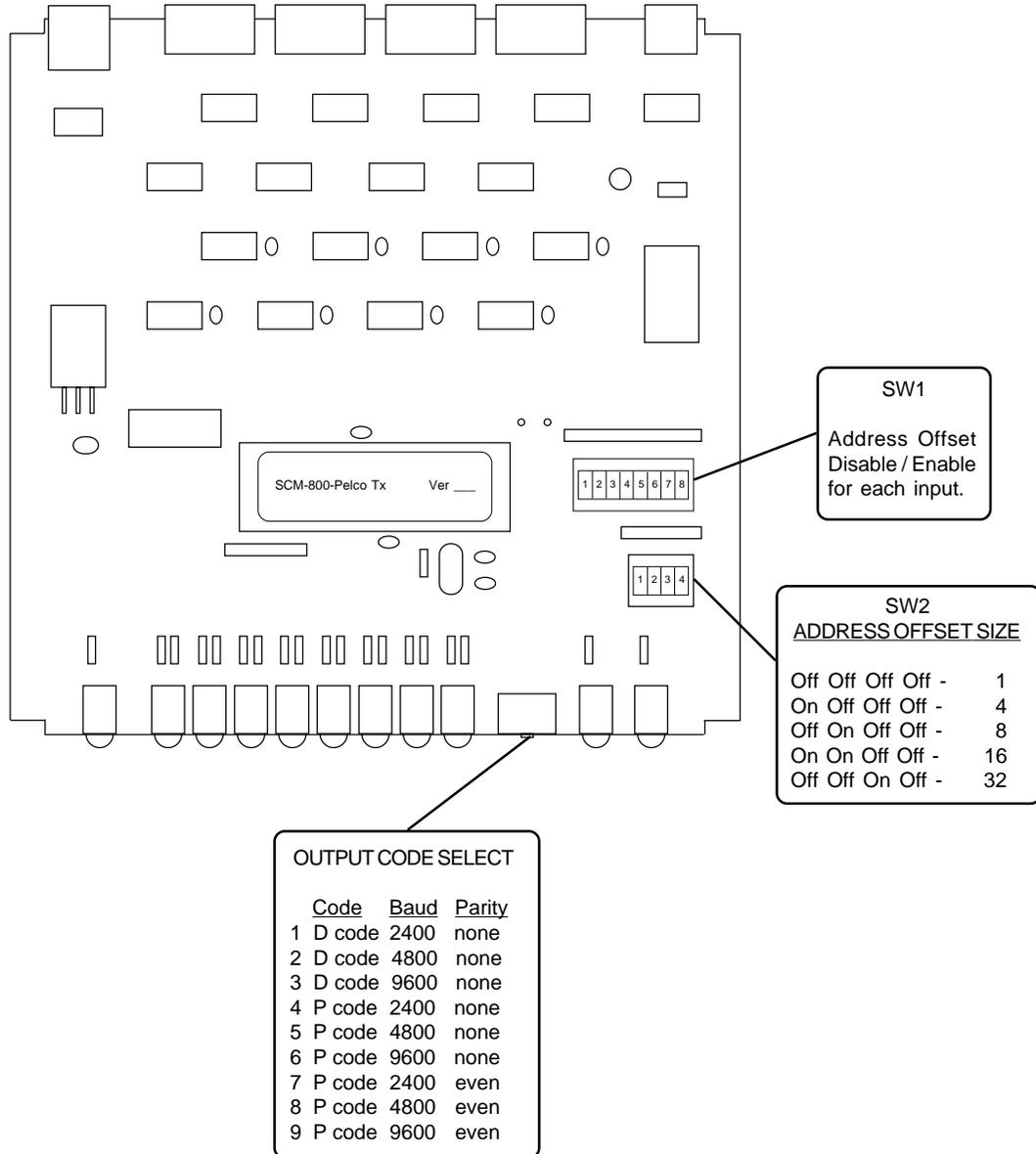
To install the case on the rack mount frame, remove the front panel and the plastic bezel. The rack mount frame takes the place of the bezel as shown below.



## SETTING THE SWITCHES

Any changes to the rotary switch for output code and the address offset switches take effect immediately, it is not necessary to cycle power after changing a switch.

To set the offset switches, remove the back panel which is secured by two screws. Then slide the circuit board out for access to the switches.



# INSTALLATION

## FRONT PANEL



POWER INDICATOR

**INPUT DATA INDICATORS**

Each LED will flash when data is received on its input. A GREEN light indicates that the received data is valid. A RED light indicates an error.

Note: The input LEDs will flash red momentarily while the SCM-800 automatically detects the initial input data.

**OUTPUT CODE SELECTOR**

Code	Baud	Parity
1	D code 2400	none
2	D code 4800	none
3	D code 9600	none
4	P code 2400	none
5	P code 4800	none
6	P code 9600	none
7	P code 2400	even
8	P code 4800	even
9	P code 9600	even

**TRANSMIT INDICATOR**

Flashes when the SCM-800 transmits data

**STATUS INDICATOR**

Flashes when the output address has been offset

## BACK PANEL



PELCO RS-422 OUTPUT

PELCO RS-422 INPUTS

POWER INPUT

## OPERATION

### **Auto-detect**

The SCM-800 auto-detects the code type ("P" or "D") and the baud rate (2400, 4800, 9600, or 19200) of the data it initially receives on each input after power-up. The indicator LED for each input will briefly flash *red* when this occurs. Once the code type and baud rate have been detected on any given input, its LED should flash *green* when further data is received to indicate that the code is valid. If an input LED continues to flash *red* as further data is received, it indicates that an error has occurred.

### **Address Offsets**

The ability to offset the addresses is recommended only for situations where a controlling device (e.g. an encoder or DVR) has limited addressing capability that prohibits it from matching a camera address.

For example, if a system is using multiple 4-channel encoders that can only transmit to addresses 1 through 4, they will be unable to control cameras with addresses above that range, such as cameras 5 through 32. In this situation, the SCM-800 can add an offset to the input addresses received from the encoders in order to match higher camera addresses. Switch #1 (SW1) inside the code merger enables or disables the address offset for each individual input. Switch #2 (SW2) determines the size of the offset for all enabled inputs, either 1, 4, 8, 16, or 32.

The total offset for any given input is the sum of its own offset PLUS the offsets of any enabled inputs before it. For instance, if all inputs except Input 1 have an offset enabled and the size of the offset is 4, the output address ranges would result as follows (using 4-channel encoders limited to addresses 1 through 4):

	Input Address Range		+ Offset		+ Sum of Previous Offsets	=	Output Address Range
INPUT 1	1-4	+	Disabled	+	n/a	=	1-4
INPUT 2	1-4	+	4	+	0	=	5-8
INPUT 3	1-4	+	4	+	4	=	9-12
INPUT 4	1-4	+	4	+	8	=	13-16
INPUT 5	1-4	+	4	+	12	=	17-20
INPUT 6	1-4	+	4	+	16	=	21-24
INPUT 7	1-4	+	4	+	20	=	25-28
INPUT 8	1-4	+	4	+	24	=	29-32

The yellow Status Indicator on the front of the code merger will flash when data is received on an input with an address offset enabled.

**IMPORTANT NOTE:** Because the address offset value of each input depends on the offset values of previous inputs, as shown above, enabling or disabling an address offset for one input will affect not only the resulting output address of that input, but of all offset-enabled inputs following it. In the above example, if the offset for Input 6 were disabled, its output address range would be 1 through 4 (same as Input 1), Input 7 would have an output address range of 21 through 24, and the encoder on Input 8 would control cameras 25 through 28. In this case, two encoders could control cameras 1 through 4, but none of them would control cameras 29-32. In order to avoid potential conflict or confusion in data transmission, we recommend that address offsets be enabled uniformly, as in the above example, and only if necessary.

