









# UNIVERSAL PTZ Keyboard

## User Manual

Before attempting to connect or operate this product, please read this manual carefully and keep it for future use.



### SAFETY PRECAUTIONS

#### WARNING

-  To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.
-  Do not block ventilation openings.
-  Do not place anything on top of the unit that might spill or fall into it.
-  Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Please refer all servicing to qualified service personnel.
-  Do not use liquid cleaners or aerosols for cleaning.
-  This installation should be by a qualified service person and should conform to all local codes.
-  To prevent fire or electric shock, do not overload wall outlets or extension cord.
-  This unit must be grounded to reduce the risk of electric shock hazard.

#### CAUTION

**Danger of explosion if the Lithium battery (RTC Battery) is incorrectly replaced.**

-  Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.
-  Risk of explosion if replaced by an incorrect type. Dispose of used batteries according to the instructions.

#### INFORMATION

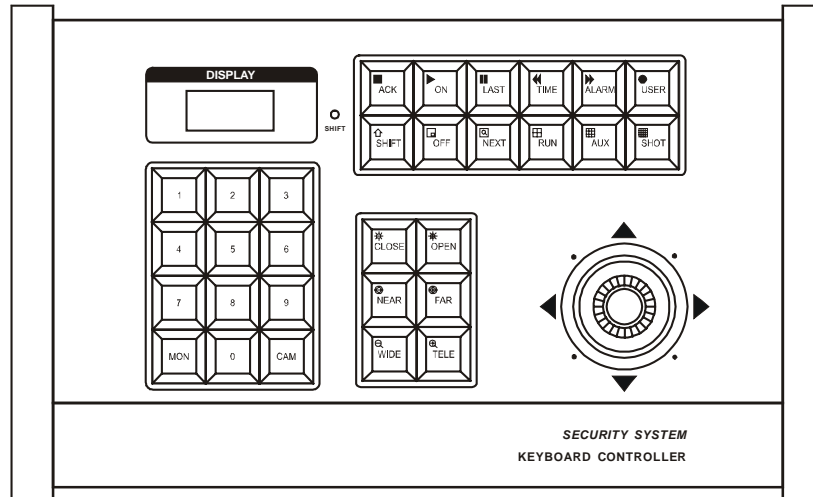
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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**Summarize:**

System keyboard is a operation keyboard for communication between keyboard and matrix. System keyboard can control all the camera, program monitor, switch queue, control decoder. Digital display are can show the ID of current camera. And system keyboard have operation protect function.



**Function of key:**

- |                                |                           |
|--------------------------------|---------------------------|
| MON— select a monitor          | CAM— select a camera      |
| LAST— auto switch back forward | NEXT— auto switch forward |
| TIME— switch delay time        | RUN— run auto switch      |
| ON— start function             | OFF— stop function        |
| AUX— assistant function        | SHOT— use preset          |
| ALARM—setup Alarm state        | USER— edit menu           |
| ACK— function confirm          | SHIFT—_____               |
| OPEN— Open iris                | CLOSE—close iris          |
| NEAR— turn focus(FOCUS+)       | FAR— turn focus(FOCUS-)   |
| WIDE— zoom in(ZOOM+)           | TELE— zoom out (ZOOM-)    |
| Full side area—move scanner    | number area—input data    |

Att: hold **0** key to reset number. System will auto reset number if the umber more than 4 bits. Redisplay the new number.

**Part one control matrix switch system**

**1.1 power on the keyboard:**

Use the DIP switch front of the keyboard to set the ID of the keyboard. (info part three). 12V DC power use interface box and 8pin wire connect to keyboard. Keep the communication between interface

box and matrix, power on the keyboard. Then communication led (code) will flash. (if it isn't flash. Mean that communication wire with wrong connect.) display area show "8888" test itself. Then display "----", keyboard ask for 4 bits password. Original password is "0000", input :\*\*\*\*+**ACK**. password access accepted will display "0", input any monitor ID and press **MON**, display area will show current monitor ID. That mean keyboard on work.

## 1.2 KEYBOARD OPERATION LOCK:

After the operation, to refuse other one operate on it. can set the keyboard as lock mode:

1. input **9** **0**;
2. press **AUX** key;
3. press **ON** key display area show "----".

## 1.3 Keyboard operation unlock:

Unlock keyboard operate protect

Use "\*\*\*\*" + **ACK**, \*\*\*\* is the password of the keyboard. (original password is 0000)

Att: display ---- only when unlock the keyboard.

## 1.4 set password for keyboard:

keyboard password limited for 4 bits number. If need to change the password, step as the following:

- 1 Input **9** **0**;
2. press **AUX**
3. input 4 bits password \*\*\*\*;
4. press **ACK** key;

Att: if lost the password, you can use the **KEYBOARD PASSWORD** item in the menu of matrix switch to fine the password.

## 1.5 Select monitor:

Select the video from the keyboard need to keep the communication between keyboard and matrix. Select the monitor at first. Then choice the camera. This way can let you control the camera.

1. Input the useable monitor ID.
2. Press **MON** key, screen display the current monitor ID.

For example: select No.2 monitor.

1. press **2** number key.
2. press **MON** key.

Now, No.2 monitor be the surveillance monitor.

## 1.6 Select camera:

Input the camera ID you need to select. (this camera have video signal input)

Press **CAM** key. Image of this camera need to appointed monitor. Screen display the current camera ID.

For example: select camera 1 display on monitor 2

1. press **2** number key,
2. press **MON** key
3. press **1** number key
4. press **CAM** Key, now monitor 2 will display the image of camera 1.

### 1.7 Control the decoder (remote camera):

Camera scanner. Lens. Preset and assistant function will operate when the camera set to the control mode.

When the camera was programmed to incontrollable, the keyboard is ineffectively.

#### 1.7.1: Handle (Operate) scanner

在键盘右边有 1 个矢量摇杆可控制摄像机的方向。

**There is a rocker on the right of the keyboard , it can**

**Control the orientation of the camera.**

Handle:

1. 调要控制的摄像机至受控监视器。

Select the camera which need to control to the co monitor has been controlled.

2. Rock the vector rocker which the image athletic direction, it can control the direction of the camera.
3. Undo the vector rocker will be stop the direction handle of camera.

#### 1.7.2: Lens controlling

There is a group of key can controlling the lens Of the camera on the right of the keyboard.

Those key are:

**CLOSE/OPEN**: Use to control the Iris of the lens. Use the two keys, it can change the quantum of the light through the lens, so we can get seemly video signal voltage

**NEAR/FAR**: Used to control focus of lens. Use the two keys , it can Change the focus of lens, Thereby obtained clear image.

**WIDE/TELE**: Used to change the zoom of the lens, Use the two Keys it can change the zoom, Thereby obtained wide degree or feature menu.

operate:

1. Set the camera which need to control to the controlled monitor.
2. Press the lens function key which you want to handle, it can control lens.
3. Unlock the key-press can stop to handle

#### 1.7.3 Scanner function:

Start-up the auto scan

1. Set the camera which need to control to the controlled monitor.
2. press **0** key
3. press **AUX** key
4. press **ON** key

Stop scanner auto scan

1. Set the camera which need to control to the controlled monitor.

2. input

3. press  key.

4. press  key.

### 1.8 Control intelligent high speed Dome:

1.8.1 Shift speed Pan/Tilt scan: handle the vector rocker, handle haulm departure degree direct ratio to the career of the intelligent high speed Dome.

#### 1.8.2 Handle of Lens

Use / key to focus the Lens.

Use / Key can get the panorama or feature image.

#### 1.8.3 Set the preset

Select the camera, adjust the image. Input the user-defined preset number, press SHOT key, and press ON key. Adjust the image. Go along the next set.

#### 1.8.4 transfer the preset:

Transfer the camera which need to control to the controlled monitor. Input the number in the figure area which you want to watch. Press SHOT key than press the ACK key. Monitor will show The image. If not set the image, the monitor will be not change.

#### 1.8.5 Clean the preset:

Select the camera, input the preset number, press SHOT key, then press OFF key.

### 1.9 Handle assistant function

The key of AUX ON/OFF it have control assistant function . frondose is below:

+  + / decode ware assistant 1 ON / OFF

+  + / decode ware assistant 2 ON / OFF

+  + / decode ware assistant light ON/OFF

+  + / decode ware assistant rain brush ON/OFF

Handle

Set the camera which need to control to the controlled monitor

Input the assistant function number (1-4). which you wanted to handle.

1. press  key.

2. Press ON press to open the assistant function and press OFF key to close the assistant function.

### 1.10 System freedom switch:

Freedom switch it' s means come by proper program, it' s can

Show series the video input with Auto and order which the program appointed, per video input show length set stick time switch queue

#### 1.10.1 The program cose of Monitor freedom switch is below:

1. Set the monitor num. which you want set to the freedom switch.

2. Input the delay time from 2-240 second for each camera.

3. Input the original camera Num. of freedom switch
4. Input the end camera Num. of freedom switch.
5. The monitor auto switch is begin to run.

Example: Switch 1-6 camera image stay 2 seconds in the 3 monitor.

- 3** + **MON**. Select Monitor
- 2** + **TIME**. Auto switch delay time
- 1** + **ON**. original camera Num.
- 6** + **OFF**. End camera Num.

#### 1.10.2 Set the stay time of auto switch quod camera

According the step below:

1. Input the stay time 2-240s
2. press **TIME** key

#### 1.10.3 Run auto switch:

1. Input **0** key
2. press **RUN** key

#### 1.10.4 Add a camera in the auto switch queue which been programmed.

1. Press camera num.
2. Press **ACK** key.
3. Press **ON** key.

#### 1.10.5 Delete a camera in the auto switch queue which been programmed

According the step below:

1. Press camera num.
2. Press ACK key.
3. Press OFF key

#### 1.10.6 Stop auto switch:

Press N (number key but 0) + **CAM**, to stop the auto switch, and stay to display the image of the camera selected.

Press **0**+**RUN** key can continue the switch.

#### 1.10.7 Single switch and change the switch way:

- Press **NEXT** key to change the switch way to up
- Press **LAST** key to change the switch way to down

#### 1.11 System program switch:

System program switch mean that use the program function in the menu of the matrix. Can display the video signal appointed by program on the monitor. Each video signal will stay on the screen for a appointed time.

#### 1.11.1 Set the team for the program:

info the item **Tour** menu of the matrix **SWITCH**

#### 1.11.2 Run the team of the program:

1. Input the number of the system switch 1-32.
2. Press **RUN** key.

Example: run number 2 system switch on monitor 3:

1. Input number **3**, press **MON** key confirm
2. Input number **2**, press **RUN** key start.

#### 1.11.3 Change the way for the system switch:

- Press **NEXT** key to change the way to up  
Press **LAST** key to change the way to down.

#### 1.11.4 Stop system switch:

Press **HOLD** key or N (number key but 0)+**CAM** key, can stop the switch. **HOLD** key can make the video signal stay on the image on displaying. And N(number key but 0)+**CAM** key use to stay the image at selected.

#### 1.12 Alarm linkage:

Alarm can switch the video input to video output automatic. And it also can control the alarm.

**Alarm linkage on:** input the alarm number, press **ALARM** key, Then press **ON** key.

**Alarm linkage off:** input the alarm number, press **ALARM** key then press **OFF** key.

#### 1.13 Alarm state:

Query alarm state: input **9 7**, press **AUX** key, press **ON** key.

Close state display: input **9 7**, press **AUX** key, press **OFF** key.

#### 1.14 Sound switch:

Sound of the keyboard can control by follow steps:

Input **9 9**, press **AUX** key.

## Part 2. control DVR, image processor

#### 2.1 into the DVR, image processor mode:

press **SHIFT**, LED **SHIFT** on, keyboard into shift function, now you can control the DVR and image processor. Correspond key on the keyboard with same function with the keys on DVR or image processor.

#### 2.2 exit DVR, image processor function:

press **SHIFT**, LED **SHIFT** off, keyboard exit shift function. keyboard exit from the DVR, image processor mode.

**2.3 Select DVR, image processor:**

into the DVR, image processor mode:

Input **1**, press **MON** key, control number 1 DVR, image processor.

Input **2**, press **MON** key, control number 1 DVR, image processor.

Input **3**, press **MON** key, control number 1 DVR, image processor.

Input **4**, press **MON** key, control number 1 DVR, image processor.

**2.4 Control DVR, image processor:**

Keyboard can not run the image processor menu function. this function need control on the panel of the image processor.

Control the function of the image processo:

**Function:** use to system setup or other special function.

**Live:** realtime display the image of current camera.

**Tape** select recorder input. When playback on the tape. press this key to display image of current recording. When record. Press this key to surveillance the video output.

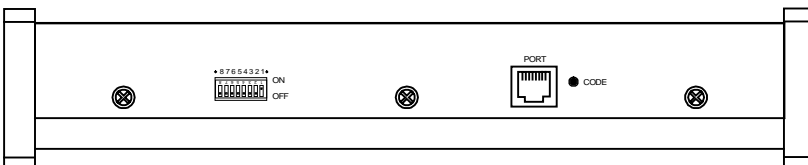
**Select:** use with camera key together to show full screen, PIP, 4 channels. 9 channels and 16 channels.

**Seq:** display in switch mode

**Part 3. connetion**

**3.1 work mode set:**

8 Switch, up is **ON**, down is **OFF**



**3.1.1 keyboard matrix mode:**

this mode use in keyboard connect to matrix, change 8<sup>th</sup> switch to **OFF**, 1.2.3.4 switch are the ID of the keyboard.

Keyboard ID and switch comparison sheet:

ID	switch				ID	switch			
	1	2	3	4		1	2	3	4
00	0	0	0	0	08	0	0	0	1
01	1	0	0	0	09	1	0	0	1
02	0	1	0	0	10	0	1	0	1
03	1	1	0	0	11	1	1	0	1
04	0	0	1	0	12	0	0	1	1
05	1	0	1	0	13	1	0	1	1
06	0	1	1	0	14	0	1	1	1
07	1	1	1	0	15	1	1	1	1

Att: can not use same ID for diff keyboard. That will make keyboard operate defeat.

3.1.2 keyboard system work mode:

This mode use to connect keyboard to decoder or speed dome. change the switch 8 to ON.

Baud rate setting: change the 5.6 switch to set the baud rate baud rate set to keep same transmit speed between keyboard and decoder.

switch			Baud rate	switch			Baud rate
5	6			5	6		
1	0		1200	1	1		4800
0	1		2400	0	0		9600

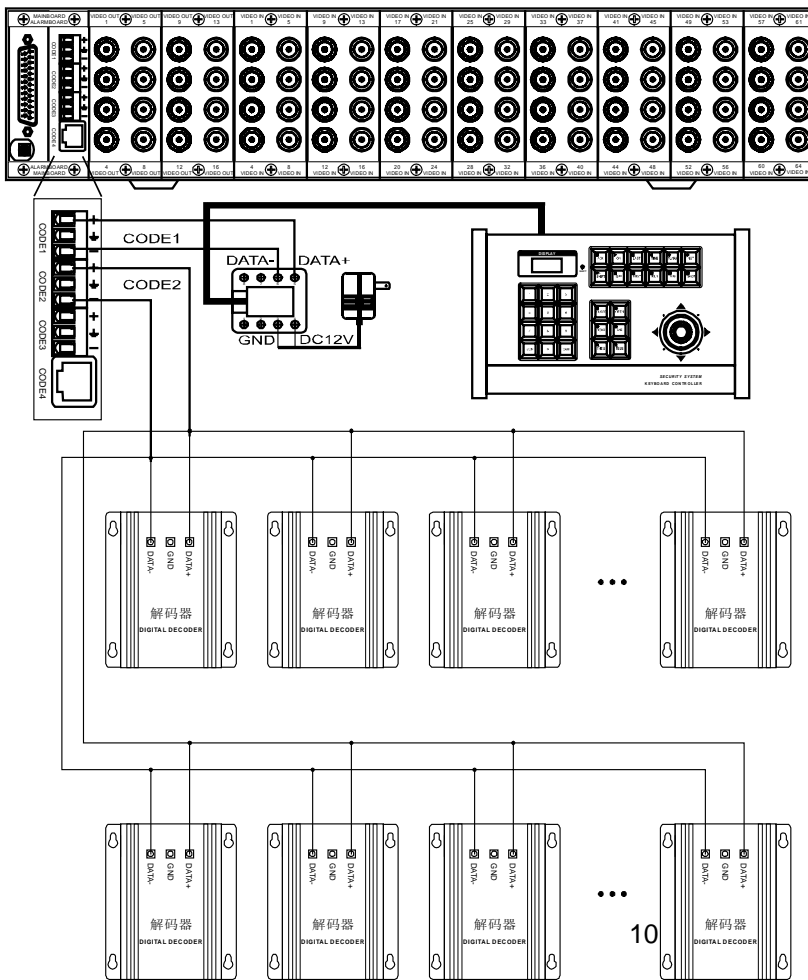
No.	1	2	3	4	protocol
1	1	0	0	0	(PELCO-D)
2	0	1	0	0	(PELCO-P)
3	1	1	0	0	(ALEC、YAAN)
4	0	0	1	0	(SAMSUNG)
5	1	1	1	1	(Hacni)
6	0	0	0	0	(Mainvan)

Control Protocol: use 1.2.3.4 switch to set the protocol of the keyboard.

3.2 Sketch map of keyboard to matrix:

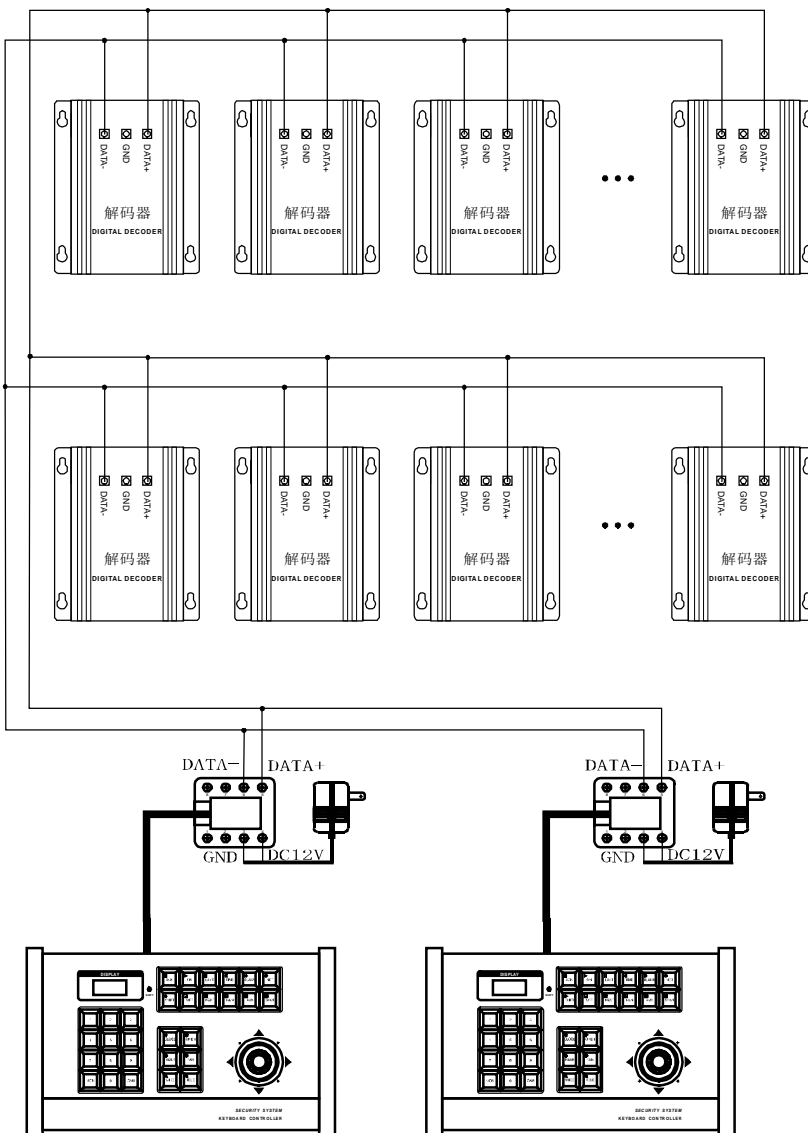
Keyboard connection box to communication port of the system use normal shield wire. Max 1200m distance.

12V DC power wire: white—DC12V. black—GND.



### 3.3 Sketch map of keyboard to decoder:

keyboard connection box to communication port of the system use normal shield wire. Max 1200m distance.



### 3.4 Sketch map of keyboard to small system:

keyboard connection box to communication port of the system use normal shield wire. Max 1200m distance.

