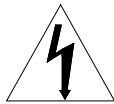
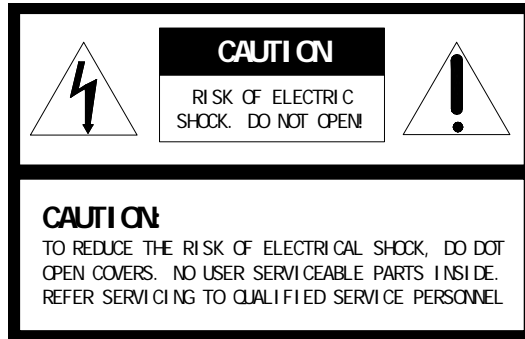


Intelligent Control Keyboard

Manual Operation

Please read the operation manual carefully before using

SAFETY PRECAUTIONS



The lightning flash with a arrowhead symbol, in an equilateral triangle, is intended to alert the user. There is uninsulated " dangerous voltage" presence near by the product's enclosure which may be risk of to persons .



The exclamation point within an equilateral triangle is intended to alert the user to reference of the important operating and maintenance (servicing) instructions .

THE PRODUCT CODE MARKED ON THE BOTTOM COVER. PLEASE FILL THE CODE IN THE FOLLOWING BLANK. PLEASE SAVING THIS SPECIFICATION CAREFULLY, SO THAT CHECKING.

MODEL: _____

PRODUCT CODE: _____

V2.1

Contents

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Notes for Attention:

This manual is to help you use the product correctly, before using for the first time, make sure read the manual carefully, the safe information and other attentions in terms mentioned will help you use this products well.

➤ Electric safe

Observe all national and area electric safety standards in application. Adopt DC12V/1.0A power supply, input rated voltage is marked in relative space, If the power supply and voltage can't be sure in installation place, please contact with distributor or factory.

➤ Transport carefully

Avoid incorrect operation methods such as heavy pressing, strong vibration, dip in, etc. during the course of transportation, store and installation otherwise the product could be damaged. There are sophisticated optical and electronic components inside the product. Please do not dismount components inside the product to avoid occurrence of trouble. Whether delivery or return for repair, if there is no part inside the product, then needs repair by customer himself.

➤ The competency requirement on maintenance person

The installation, maintenance about the device should be installed by the qualified maintenance technologic person. When the device has problem, find the problem according to spec first instead of maintaining it in a hurry, find the professional maintenance person if can't find the reason. About the maintenance, should be carry out by the authorized maintenance person.

➤ Installation request

- Don't storage, install and use the product in inflammable, explosive dangerous eare.
- Do not apply the product under the state exceeding limited temperature, humidity or specifications of power supply.
- For open or dismantle panel, maybe cause electric shock, don't try to repair by yourself, please contact us about all maintenance.
- Please pull out the power supply, before clear such product. Do not use the liquid or spray cleaner. Please don't brush by wet cloth to avoid scratch and corrosive liquid be into the machine which cause danger.
- Contact us if followings appear:

- a. Lines of power supply and control are broken
- b. Using the wrong power supply type or voltage
- c. fall or cover is broken
- d. Capability in Products is abnormal
- e. Doesn't work if according to manual

The whole machine can be kept repair for 3 years

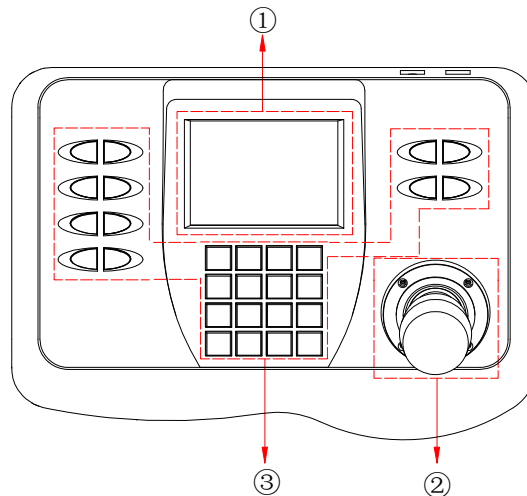
(Remark: LCD screen savers repair for one year)

I 、 The first chapter Panel and functions

Such Keyboard is a product supporting with Intelligence Dome Camera, decoder and other terminal receivers. It connects to the receiver by EIA/RS-485 electric interface. Without the bus driver, one keyboard at most to control 32 domes or decoders, and the longest communication distance is 1.2Km. the intelligence dome camera can be controlled and setup expediently by such control keyboard, and it can also control the terminal decoder directly, achieve the control to the Pan/Tilt, lens, light, wiper and other front equipments.

1.1 Front Panel

Smart appearance, LCD screen, key-press area, 3-Axis joystick compose the front panel; Among, LCD Screen is used to display system state and operation information;3-Axis is mainly used to up and down, left and right of P/T or Dome control shift gears, far and near of focus lens.



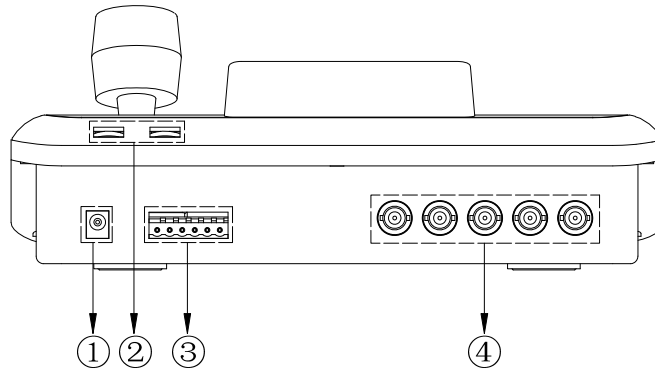
Picture 1

①LCD Screen ②Joystick ③Function Area

Press-key:

| Type | Name | Remark |
|------|--------------------|---|
| ① | LCD screen | Display system state and operation information |
| ② | Joystick | Assistant menu and key-press operation, including control up and down, left and right of P/T or Dome control shift gears, far and near of focus lens. |
| ③ | function key-press | see keyboard key-press operation |

1.2 Back Panel



Picture 2

①Power interface ②Brightness of LDC screen adjustable press

③Power、 communication interface ④Video interface

| S.N. | Name | Mark | Remark |
|------|------------------------------|--------------------|--|
| 1 | Power interface | POWER ⊖ — ● — ⊕ | Connect to exterior steady power supply input DC12V/1A DC voltage from the interface, standard power adapter can be used directly. |
| 2 | Brightness adjustment button | | Brightness adjustment button |
| 3 | Communication interface | RS485+ | RS485 Communication interface |
| | | RS485- | |
| | | RS485+ | RS485 Communication interface |
| | | RS485- | |
| | | DC12V | Power supply DC12V/1A |
| | | GND | |
| 4 | Video interface | VIDEO OUT | one video output |
| | | VIDEO IN | four video input |

1.3 Technical Parameter

| | |
|------------------------|--|
| Communication | Integrate 16 protocols , band rate from 2400bps 、 4800bps、 9600bps、 19200 bps adjustable. |
| Control | RS-485, can control many front end equipments such as dome, decoder, intelligent P/T, etc. directly. |
| Joystick control | 3-Axis shift joystick, control P/T, lens. |
| Menu function | OSD menu function |
| Screen display | LCD |
| Communication distance | Max to 1200 meters |
| Power supply | DC12V/1A |
| Dimension | 260mm×185mm×80mm |

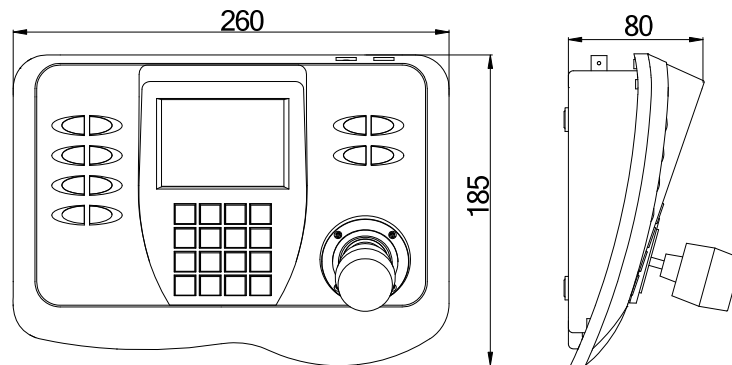
□、 The second chapter Operation Specification

2.1 Please keep all the packing documents

Please keep the original packing documents after opening the packing in order to packing the keyboards to send to the agent or factory to deal with if problems have.

⚠ Non-original packaging materials lead to accidental damage in transit, resulting in additional costs

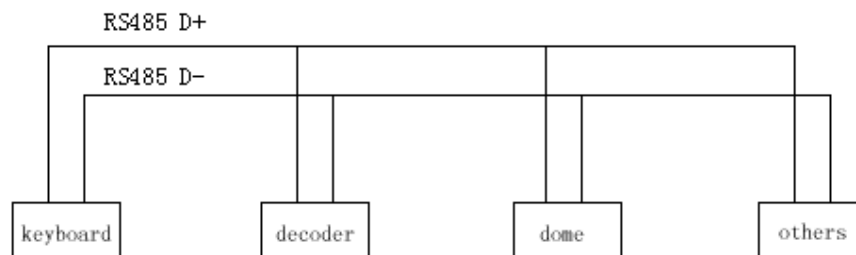
2.2 Dimensions



Picture 3

2.3 Exterior connecting introduction

When connecting with other equipments, can't be connected crossed, must connect with the corresponding pole.



Picture 4

Please carefully read the keyboard manual operation before installation. Any unregular collecting will cause the broken of equipment. Please make the dome power off before you connect the wires, and also ensure that the equipment communication line should connect with shielded twisted pair, and please note that the communication lines should be as much as possible to avoid the high-voltage lines or other interference sources.

2.4 Display after power on

When the keyboard is powered on, there will be displayed the address of current dome, baud rate, protocol code and version code, such information will be displayed for 10 seconds. If the user has known the information, can operate the keyboard directly, such information will be disappeared automatically. If there are displaying the information as follows:

```
CAMERA I D 001
BAUD RATE 2400BPS
PROTOCOL : P003
VERSION : V1.0
```

It means the current address is 001, the baud rate is 2400bps, the protocol code is P003 (the corresponding relations of the protocol code with the protocol will be listed in Table 2), the version code is V1.0. After 10 seconds, it will be displayed to keyboard operation interface, the content of input data buffer, and the current address will be displayed at the furthest bottom of the screen. As the following picture, the input data is 0000, the current address is 001.

```
DATA: 0000 I D 001
```

Please setup the address, protocol, baudrate as the same with the dome; otherwise it would cause the failure communication to be out of control of the PTZ.

2.5 Keyboard operation

➤ modify the dome camera address CAM

- press number: "1-1024"
- press key: CAM

After modify, the area of current address will display the address inputted

➤ setup the preset position: PRESET

- press number: "1-128"
- press: PRESET

➤ call preset position CALL

- press number: "1-128"
- press: CALL
- Delete presets CLEAR
 - press clear and number
 - press PRESET
- start up tracking
 - press number: "1-6"
 - press: SHOT
- setup the left point of the line scanning
 - press: AUTO
 - press: ON
- setup the right point of the line scanning
 - press: AUTO
 - press: OFF
- running the line scanning
 - Press Number
 - Press AUTO

Explain: some protocols do not need to setup the line scanning, just run the line scanning directly. After running, if the dome or Pan/Tilt is out of control, probably the protocol adopted does not support line scanning

- Replay self-study
 - Press: number
 - Press: PATTERN
- Record self-study
 - Press PATTERN and Number
 - Press ON
- Stop record self-study
 - Press PATTERN and Number
 - Press OFF
- Open keyboard menu
 - Press MENU
- Open dome or P/T menu
 - Press for 2 seconds MENU
- Video input select
 - Press 1-4

- Press VIDEO
- Lens Control
 - Far zoom WIDE Near zoom TELE
 - Far focus FAR Near focus NEAR
 - Big iris OPEN Small iris CLOSE
- Assistant Function
 - Press FUNC, key in number“0-10” Corresponding functions of different numbers refer to table -1
 - Press ON

Table 1 (if the function is out of control, probably such protocol is not support such operation)

| NUM | CONTROL OBJECT | KEYBOARD OPERATION | |
|-------|-------------------------------------|--------------------|--------------|
| | | FUNC+N+ON | FUNC+N+OFF |
| 1 | Backlight Compensation | On | Off |
| 2 | Low LUX (D/N switch) | Force On | Auto switch |
| 3 | Menu/Screen | On | Off |
| 4 | Digital Magnification | On | Off |
| 5 | Reserve | Reserve | Reserve |
| 6 | FOCUS | Auto | Manual |
| 7 | IRIS | Auto | Manual |
| 8 | White Balance | Auto | Manual |
| 9 | | Indoor Mode | Outdoor Mode |
| 10 | | ATW | Single lock |
| 91-98 | PELCO Assistant operation AUX1—8 | On | Off |

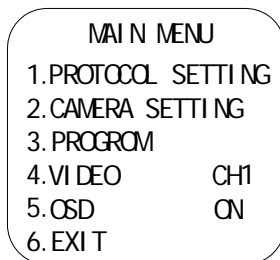
➤ **control of the dome / Pan/Tilt**

Move the joystick until the camera reaches desired position. To reach the fastest spin of camera, move the joystick utmost from center. Twist the joystick clockwise to zoom in and counterclockwise to zoom out.

2.6 The operation of keyboard menu

Press MENU to enter menu press and again to exit menu. After enter the menu, move the joystick up or down to move the cursor up or down; move the joystick left or right to adjust the content of current menu.

2.6.1 MAIN MENU at “PROTOCOL SETTING” item, move the joystick to right, display the submenu “PROTOCOL SETTING”. Move the joystick up or down to choose the menu item, and move the joystick right or left to setup the parameter.



➤ **PROTOCOL** At such item, move the joystick right or left to display: P000—P001—P002—P003—P004—P005—P006—P007—P008—P009—P010—P011—P012—P013—P014—P015 16 kinds of protocols. The corresponding of the protocol code and protocol name as following:

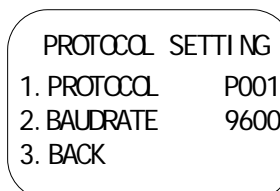


Table 2

| CODE | NAME |
|------|------------|
| P000 | A01 |
| P001 | B01 |
| P002 | SANTACHI |
| P003 | PELCO-D |
| P004 | PELCO-P |
| P005 | PANASONIC |
| P006 | LONGCOMITY |
| P007 | HD600 |
| P008 | LILIN |
| P009 | VICON |
| P010 | MOLYNX |
| P011 | KALATE |
| P012 | VCL |
| P013 | RESERVED |
| P014 | ALEC |
| P015 | ULTRAK |

➤ **BAUD RATE** At such item, move the joystick right or left to choice the four baud rates: 2400bps—4800bps—9600bps—19200bps

- **BACK** At such item, move the joystick right or left to display the submenu (MAIN MENU)

2.6.2 CAMERA SETUP At the main menu item “CAMERA SETUP”, move the joystick right to display the submenu “CAMERA SETUP”. Move the joystick up or down to choice the menu item and move the joystick right or left to setup the parameter.

- **BACK LIGHT** moves the joystick at such item right or left to switch the back light ON/OFF.
- **ICR SHOT** move the joystick at such item right or left to switch the ICR SHOT ON-AUTO.
- **IRIS** move the joystick at such item right or left to switch the IRIS AUTO-MANUAL.
- **D-ZOOM** move the joystick at such item right or left to switch the Digital ZOOM ON-OFF.
- **FOCUS** move the joystick at such item right or left to switch the FOCUS AUTO-MANUAL
- **WB** move the joystick at such item right or left to switch the WHITE BALANCE SET among AUTO—MANUAL—OUTDOOR—INDOOR—ATW—ONEPUSH.
- **OSD OF CAM** move the joystick at such item right or left to switch the menu or screen ON/OFF.
- **BACK** move the joystick at such item right or left to return MAIN MENU

- CAMERA SETTING

 1. BACK LIGHT
 2. ICRSHOT
 3. IRIS
 4. D- ZOOM
 5. FOCUS
 6. WB
 7. OSD OF CAM
 8. BACK

2.6.3 PROGRAM At the main menu item “PROGRAM”, move the joystick right to display the submenu “PROGRAM”. Move the joystick up or down to choice the menu item, and move the joystick right or left to setup the parameter.

- **SET AP START POT** move the joystick at such item right or left to set the current position of Pan/Tilt or dome as the start point of the line scanning.
- **SET AP END POT** move the joystick at such item right or left to set the current position of Pan/Tilt or dome as the start point of the line scanning.
- **RUN AP** move the joystick at such item right or left to run the line scanning from the start point to the end point.
- **SET PATROL** move the joystick at such item right or left to change the tracking number among 01-06. To press OPEN to enter the submenus of tracking edit. At

- PROGRAM

 1. SET AP START POT
 2. SET AP END POT
 3. RUN AP
 4. SET PATROL
 5. RUN PATROL
 6. SET PATTERN
 7. RUN PATTERN
 8. BACK

such submenu, move the joystick right or left to move the active cursor right or left, and move the joystick up or down to add or reduce the content of current menu item. SEQ: XX (XX is the current editing tracking number) , after edit the tracking, press CLOSE to exit and save the current setup.

| | NO | POS | SP | TM | POS | SP | TM |
|--------|----|------------|----|----|-----|----|----|
| 01 | - | - | - | - | - | - | - |
| 03 | - | - | - | - | - | - | - |
| 05 | - | - | - | - | - | - | - |
| 07 | - | - | - | - | - | - | - |
| 09 | - | - | - | - | - | - | - |
| 11 | - | - | - | - | - | - | - |
| 13 | - | - | - | - | - | - | - |
| 15 | - | - | - | - | - | - | - |
| SEQ XX | | CLOSE EXIT | | | | | |

- **RUN PATROL** move the joystick at such item right or left to change the tracking number among 01- 06. And press OPEN to run the tracking.
- **SET PATTERN** Set tracking self study.
- **RUN PATTERN** move the joystick at such item right or left to run PATTERN.
- **BACK** move the joystick at such item right or left to return the MAIN MENU.

2.6.4 VIDEO Picture channel selection.1-4 can be selected.

2.6.5 OSD character display ON-open/OFF-close.

2.6.6 EXIT Quit Menu.

Appendix I Troubleshooting

| Problem | REASONS PROBABLY | Possible Solution |
|---|--|---|
| No Video | No power supply | 1. Check the connection of power line 2. If the power supply is DC12V |
| Can not control the appoint dome or Pan/Tilt | 1.Incorrect protocol 2.Incorrect baud rate 3.Incorrect address | 1.The protocol is same between keyboard and dome or Pan/Tilt? 2.The baud rate is the same between keyboard and dome or Pan/Tilt? |

NOTE: The above lists some common causes problems, as well as solutions for reference purposes only. If you encounter other specific problems, you can consult directly with dealers, the request for technical support.

Appendix II : Maintenance service terms

1、 Service range

- ✧ In one year the cargo sold, the problem is approved caused by product material or techniques defect, manufacturer will repair or replace for free;
- ✧ Warranty period of all parts which have repaired or replaced is 90 days after sending out cargoes;
- ✧ Products can't be repaired for free for manpower cannot dispute reason(such as war, earthquake, lightning strike),improper use, deviant operation, revise, normal fray or problem caused by accident;
- ✧ Factory takes on no responsibility on p damage and loss caused by product special use or application. The compensation on fell back, neglect or infringement about products will not over products value. Manufacturer won't take on any responsibility on special, sudden or continued damage caused by any other reason;
- ✧ Trouble products over warranty period, we do repay maintenance service lifetime.
- ✧ whole machine is repaired for free for 3 years(remark: camera module for 1 year)

2、 Repair for free terms

Cargoes need repair during repair for free period, buyer connect manufacturer to get RAN, and provide product information below along with cargoes;

- ✧ Type and serial NO.;
- ✧ Delivery date, order NO., sale order NO. or manufacturer invoice;
- ✧ Detailed problem phenomenon

If having disputes on repair for free terms hereinbefore, please attach written explanations when returning products.

3、 Return

For returning cargoes quickly, please contact manufacturer to get RAN(repair NO.), then arrange sending cargoes to manufacturer. All returned cargoes should mark RAN clearly. Delivery way of returning cargoes is the same as way of delivery to manufacturer. Manufacturer only undertake the single freight of manufacturer send cargo to customer after repair.

Model and parameters are subject to change without notice.