

**Summary**

- ◆ The keyboard controller is used for terminal receivers such as the intelligent speed dome etc. It is very easy for operating and setting the speed dome camera. The controller is also to control the terminal receiver to achieve the function of controlling pan/tilt, lens and etc.
  - ◆ Taking the EIA/RS-485 electrical interface between the keyboard and the receiver.
  - ◆ one keyboard can control as much as 128 speed dome.
  - ◆ the maximum communication distance between the keyboard and the receiver is up to 1.2 km.
- ➔ **Introduction of the keyboard Panel**

The Sketch of the Front Panel and Description of Buttons (Figure 1)

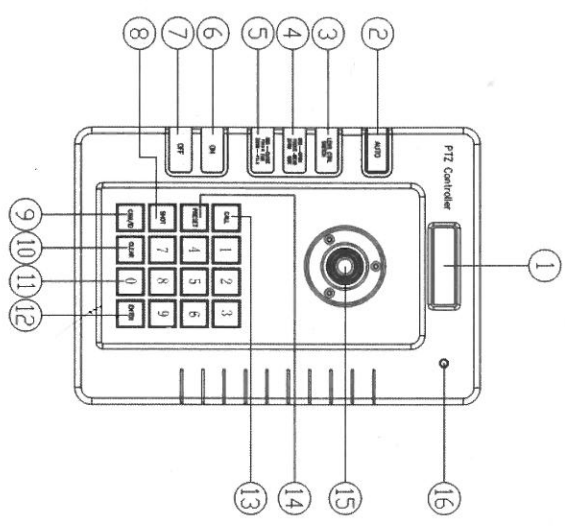


Figure 1

- 1、 LCD
- 2、 AUTO: To control auto-horizontal rotation for Pan/Tilt.
- 3、 LENS CTRL SWITCH : To select the following function ➔ IRIS / FOCUS / ZOOM
- 4、 IRIS OPEN / FOCUS NEAR / ZOOM WIDE: to execute the function which [LENS CTRL SWITCH] selected, there is three function ➔ IRIS OPEN / FOCUS NEAR / ZOOM WIDE

**5、 IRIS CLOSE / FOCUS FAR / ZOOM TELE:** to execute the function which [LENS CTRL SWITCH] selected , there is three function: iris close, focus far, zoom tele.

- 6、 ON/MENU: Switch on the setting of function./OSD MENU
- 7、 OFF: Switch off the setting of function.
- 8、 SHOT: To call cruising track.
- 9、 CAM/ID: Select address of the intelligent Speed Dome.
- 10、 CLEAR: To clear inputted data.
- 11、 0-9: Number key.
- 12、 Enter: To confirm.
- 13、 CALL: To call the preset position.
- 14、 PRESET: To set the preset position.
- 15、 JOYSTICK

- 2 AXIS: control the upward, downward, leftward and rightward speed motion of the speed dome.
- 3 AXIS: control the upward, downward, leftward and rightward speed motion of the speed dome. counterclockwise rotation zoom out , clockwise rotation zoom in.

**Rear Panel (Figure 2)**

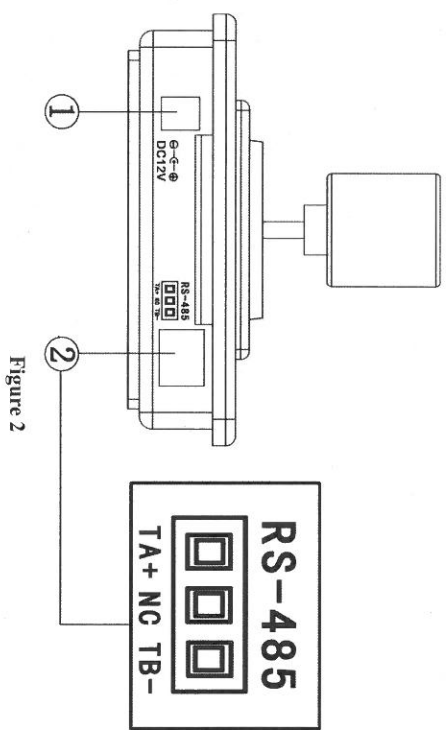


Figure 2

- 1、 Power input connector: input DC12V power.
- 2、 Communication connector RS485

## ■ Select Protocol of the Keyboard

1. Protocol Setting: press [CALL]+[200]+[ON], LCD will show "Display: Select Protocol ", and turn the joystick left or right to select the protocol you wanted, press [Enter] to save the protocol.
2. Protocol type:
 

◆ PELCO-D 2400bps	◆ PELCO-D 4800bps
◆ PELCO-D 9600bps	◆ PELCO-P 4800bps
◆ PELCO-P 9600bps	◆ COP-2 9600bps

## ■ Operation of the Keyboard

1. Select Address of the Speed Dome Camera: [CAM]+[N]+[Enter]  
 Display: Current CamID: 001  
 Description: N — No. of camera from 0 to 255  
 Function: Select the address of the camera to be controlled. When the value N is in conformity with the address of the Speed Dome Camera, it will be under control.
2. Set the Preset Position: [PRESET]+[N]+[Enter]  
 Display: Preset No: 001  
 Description: N — No. of preset position from 1 to 255.  
 Function: Store current position and refer it as No. N position.
3. Call the Preset Position: [CALL]+[N]+[Enter]  
 Display: Call Number: 001  
 Description: N — No. of preset position from 1 to 255.  
 Function: Transfer the camera to the position of No. N preset position.
4. Cancel the Preset Position: [PRESET]+[N]+[OFF]  
 Display: Preset No: 001  
 Description: N — No. of preset position from 1 to 255.  
 Function: Delete the No. N preset position stored.
5. Set the Cruise Track (COP-2, PELCO-D, PELCO-P Available):
  - ◆ Enter the Status of Track Setting: [SHOT]+[N]+[ON] (N: No. of track from 1 to 6).  
 Display: Track = 01 Sum = 06  
 Description: Track No. 1 is currently setting, in which there are 6 preset points.
  - ◆ Edit Track: Press [TELE] to edit down page and press [WIDE] to edit up page. Each track involves 16 preset points and the running speed and the dwelling time of each preset position.  
 Display: No.: 01 Point: 001 → Description: The 1st preset position in the track is 001.  
 Display: No.: 01 Speed: 001 → Description: The speed of the 1st preset point in the track is the 1st class.  
 Display: No.: 01 Time: 004 → Description: The dwelling time of the 1st preset point in the track is 4 Seconds

- ◆ Speed Range: 1 to 8 from the fastest to the lowest. Any speed outside the range will be referred as the 1st class: the range of the dwelling time is: 1 to 255.

- ◆ When the No. N preset point is set as No. 0, then all preset points before the No. N preset point in the track will be valid however all numbers of preset points afterward and their speed and dwelling time shall be set as 0 automatically.

- ◆ After tracks are edited, press OFF to store and exit while push the joystick to exit without storage.

6. Run Cruise Track: [SHOT]+[N]+[Enter]  
 Display: Input Tour No: 01  
 Description: N — No. of the track from 1 to 6.  
 Function: Tour the No. N track and stop tour by pushing the joystick.
  7. Stop Cruise Track: [SHOT]+[N]+[OFF]  
 Display: Input Tour No: 01  
 Description: N — No. of the track from 1 to 6.  
 Function: Stop the No. N track or stop tour by pushing the joystick.
  8. Cancel Cruise Track: [SHOT]+[N]+[OFF] (Pressing [OFF] down until "Clear Tour OK" appears)  
 Display: Input Tour No: 01  
 Description: N — No. of the track from 1 to 6.  
 Function: Delete the No. N track
  9. Auto Pan ON (Operation of COP-2 Protocol): [AUTO]+[P1]+[ON]+[P2]+[OFF]  
 Display: Input 1st No: 001  
 Description: P1 — the starting scan No. of preset point from 1 to 255, which should be set already.  
 Display: Input 2nd No: 002  
 Description: P2 — the ending scan No. of preset point from 1 to 255, which should be set already.  
 IF P1 = P2 or P1 and P2 are coincided, the speed dome will make scan in range of 360°.
- Note:
- (1) For PELCO-D and PELCO-P Protocols the way of operation is as follows:
    - ◆ Set the Starting Scan Position: Transfer the speed dome to the starting scan position, operation [AUTO]+[ON]
    - ◆ Set the Ending Scan Position: Transfer the speed dome to the ending scan position, operation [AUTO]+[OFF]
    - ◆ Run Auto Pan: [AUTO]+[ENTER]
  - (2) Auto Pan operation takes the following parameters: You must set these parameters before using a Auto Pan command to begin the scan operation. You can use the scan Stop command or PT scan stop command to stop the scan. Setting scan condition:
    - ◆ Auto Pan Position (First specify position, second specify position)
    - ◆ Auto Pan Speed and Direction.

10. Stop Auto Pan: [AUTO]+[OFF] (only for COP-2 protocol) or push the joystick to stop scan.

11. Control the Zoom of the Camera: firstly, press [LENS CTRL SWITCH], you can see "Lens Zoom CTRL" showed on the LCD, secondly, press [ZOOM WIDE]/[ZOOM TELE] to execute the function.
12. Control the Focus of the Camera: firstly, press [LENS CTRL SWITCH], you can see "Lens Focus CTRL" showed on the LCD, secondly, press [FOCUS FAR]/[FOCUS NEAR] to execute the function.
13. Control the Iris of the Camera: firstly, press [LENS CTRL SWITCH], you can see "Lens Iris CTRL" showed on the LCD, secondly, press [IRIS OPEN]/[IRIS CLOSE] to execute the function.
14. Enter menu: [ON]
15. Back Light of Keyboard Screen: [CALL]+[S]+[ON]/[CALL]+[S]+[OFF]
16. Version number display: [CALL]+[211]+[ENTER]
17. Use the Joystick to control the speed dome camera:  
You can use the speed joystick to control the Pan/Tilt direction and speed of the speed dome randomly. The speed of pan/tilt is decided by the angle of the joystick you operated (Figure 3).  
Change the tilting angle of the joystick you can adjust the speed evenly and the camera can be focused automatically in the course of scan to keep images being distinct.

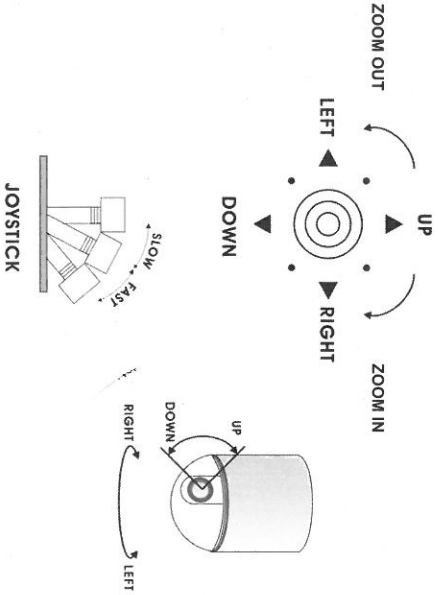


Figure 3

\* ZOOM OUT & ZOOM IN Function available for 3 axis Joystick only

18. In case error operation occurs, normal display will be recovered after "Error Operation" appears for 1 second

## Installation and Connection:

Attention: Please read the operation manual of the keyboard and the speed dome carefully before connecting wires. Any incorrect connections can cause permanent damage of the device. When connecting wires, first switch off the power supply of all devices. The communication wires between devices should be shielded twisted cable. When installing cables they should be far away from high voltage lines or other possible interference circuits as can as possible.

1. The marking of wires of the transfer box (Figure 4)

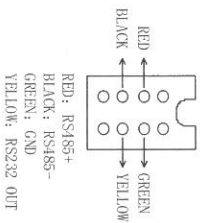


Figure 4

2. Connections of the keyboard controller controlling multiple speed dome cameras (Figure 5)
3. Connections between the keyboard and the speed dome camera (Figure 6)

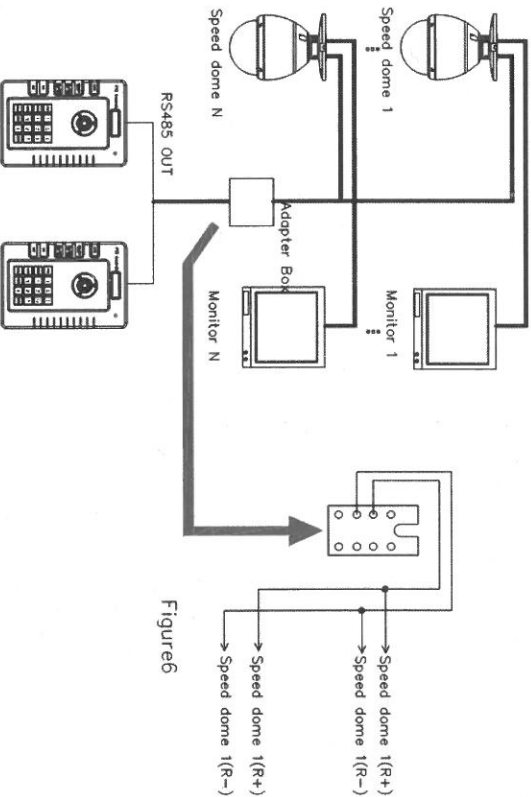


Figure 6

Figure 5

## ■ Technical Specifications:

- ◆ Communication between Speed Dome Camera and Controller: Port to multi-port and half duplex function.
- ◆ Communication connector: RS-485.
- ◆ Baud Rate of Communication: Four baud rates i.e. 2400bps, 4800bps and 9600bps.
- ◆ Distance of Communication: 1200m in maximum
- ◆ Power Supply: DC12±1V/1A;
- ◆ Size:
  - 2 AXIS : 130(L)×190(W)×64(H) (mm)
  - 3AXIS : 130(L)×190(W)×95(H) (mm)
- ◆ Weight:
  - 2 AXIS : 525 g
  - 3AXIS : 600 g
- ◆ Number of controlled speed dome camera up to 128.

## ■ Points for Attention:

- ◆ Please read the operation manual of the keyboard carefully before using it.
- ◆ The keyboard takes DC12V power supply. Please confirm the voltage and polarity before the power supply is switched on.
- ◆ Do not place the keyboard under the rain or on wet place so as to avoid short circuit or electrical shock.
- ◆ As the keyboard is a sophisticated electronic device, you should never open the case so as to avoid the occurrence of trouble.
- ◆ The keyboard has integrated multiple protocols, and you are pleased to select correct protocol and the baud rate. When switching on power supply, take care of the selected protocol and the baud rate on the first screen.

## ■ Packing List

- ◆ Keyboard Controller 1
- ◆ Power supply DC 12V 1