

OXIC - XK5820
Intelligent Keyboard Controller
User's Manual

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1. Keyboard introduction

Intelligent network keyboard is designed to directly control high speed / low speed PTZ dome camera.

1.1 Keyboard main features

3-Axis joystick, position exactly

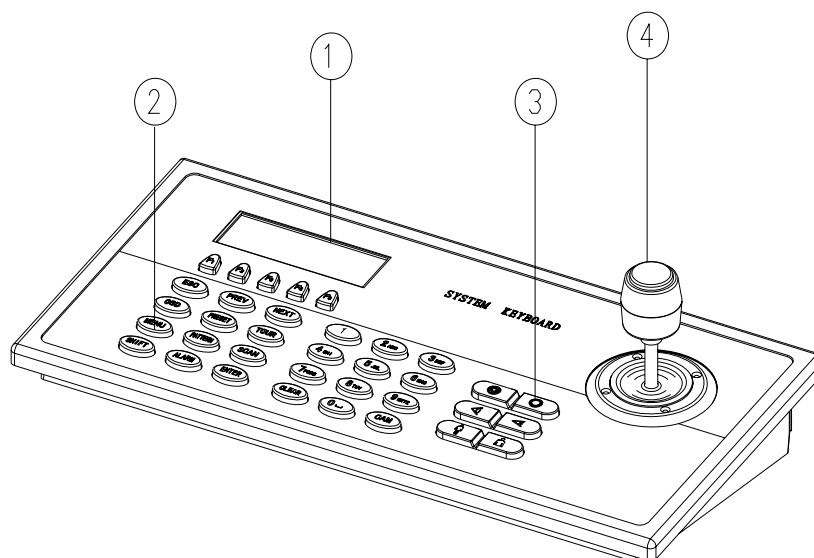
Meticulous matrix LCD, operate help information plentiful and real-time

Two wires of RS-485 port can control multi-domes.

Silica gel keystroke back light subarea display, durable for using.

Support self-inspection of joystick/keyboard/LCD/port

1.2 Keyboard layout



① LCD

② Main board

【0】 ... 【9】: Figure & English input

【F1】 ... 【F5】: Keys for upgrade

【ESC】: Cancel key

【ENTER】: Certain key

【PREV】: Switch to last dome; move the cursor upward on menu

【NEXT】: Switch to next dome; move the cursor downward on menu

【PRESET】: Function key for preset position

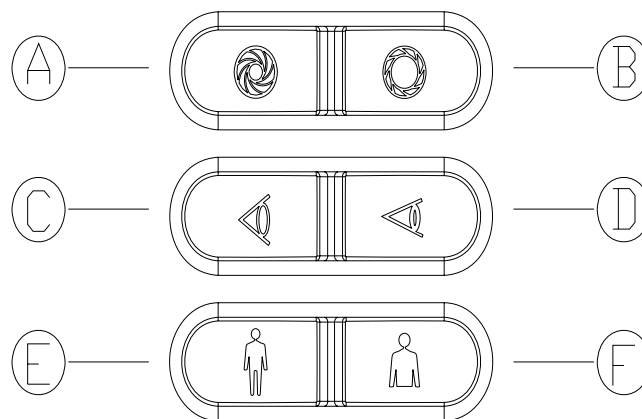
【TOUR】: Function key for cruising tour position

【PATTERN】: Function key for pattern tour position

【SCAN】: Function key for auto scan position

- 【ALARM】:** Function key for contact closure open/close
【OSD】: Function key for speed dome 's OSD menu setting
【MENU】: Function key for keyboard menu setting
【SHIFT】: Combination key
【CLEAR】: Functioning key for clearing off the inputed instructions
【CAM】: Jey for switching camera

③ Lens control key

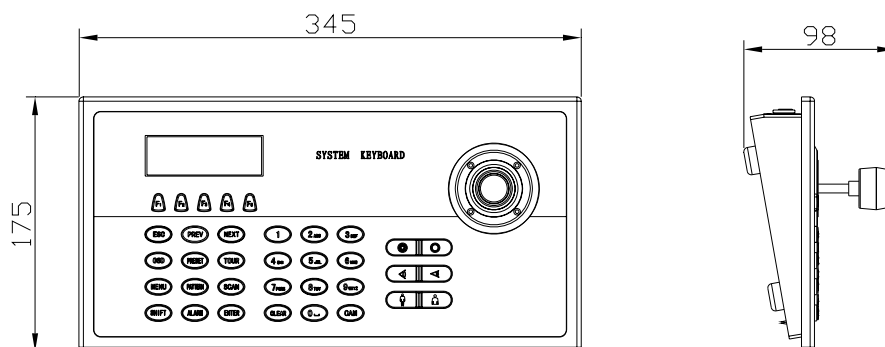


- A: Iris close B: Iris open
 C: Focus near D: Focus far
 E: Zoom out F: Zoom in

④ Three-dimensional Joystick

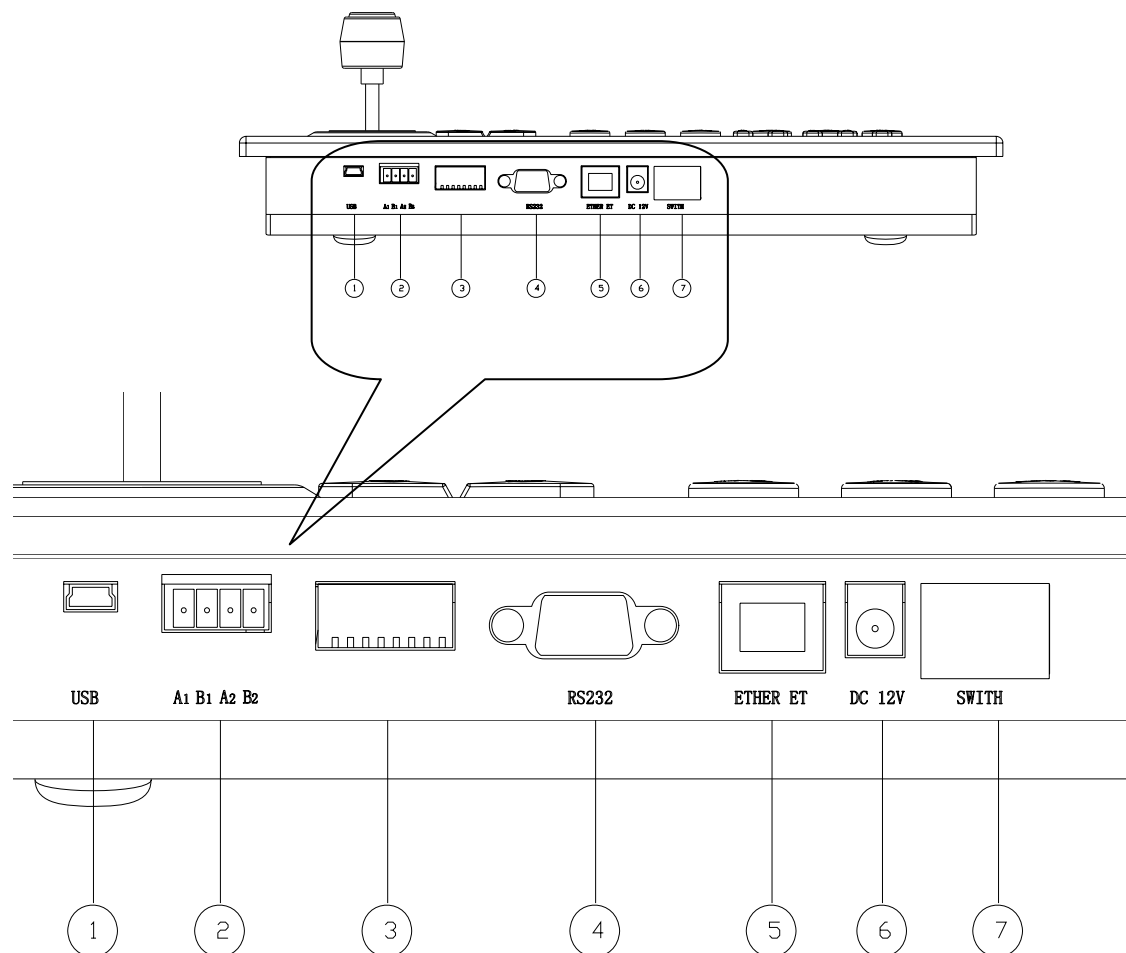
1.3 Technical data

- operating temperature: $-10^{\circ}\text{C} \sim 50^{\circ}\text{C}$
 operating humidity: $<90\%$
 operating voltage: DC12V
 power supply: 5W
 dimensions (mm): 345×175×98 (length × width× height)



2. Keyboard installation

2.1 The back view



- ① MINI USB: Program upgrade USB
- ② RS-485: Two lines of RS-485 control
- ③ Dip switch: Reserved for further use
- ④ RS-232: Reserved for further use
- ⑤ Network connection: Reserved for further use
- ⑥ Power input: DC12V/1000mA
- ⑦ Power switch

2.2 Installation

Connect RS-485 interface on the keyboard with RS-485 interface on camera. (two equipment A/B/G separately connect) , open and start keyboard power. Keyboard display user load interface, input password then can used.

2.3 User guide

The first step: input keyboard load password, default password“000000”, then entry main control interface.

The second step: Press **【SHIFT】** + **【MENU】** key, entry keyboard setting menu.

The following steps can operate menu:

【NEXT】、**【PREV】** key move cursor up and down, **【ENTER】** key insure or enter submenu, **【ESC】** key return back to upper menu.

The third step: Choose the first term of menu to set communication protocol. Choose the second term to set communication baud rate. Finish setting and return to the main interface.

The forth step: In main interface, input address of speed dome camera, press **【CAM】** key to confirm.

The fifth step: Operate joystick, then control the up, down, left, right and zoom of speed dome camera.

3 Keyboard Setting

3.1 Setting

Please read this chapter carefully, and make setting of the keyboard as to it.

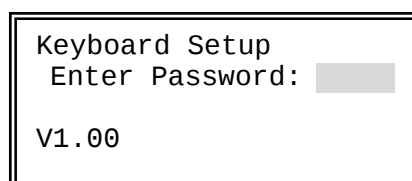
The operation via menu on the LCD screen support both keyboard button control and joystick control (Menu for camera site control via joystick excluded):

- 1、Moving the joystick to the left equals pressing the **【ESC】** : Return to previous menu.
- 2、Moving the joystick to the right equals pressing the **【ENTER】**: Go to the submenu.
- 3、Moving the joystick up or down equals pressing **【PREV】/【NEXT】**, and you can select menu option by moving the cursor.
- 4、The menu will return to the previous level without any operation within 45 sec.
- 5、Contents in < > displayed on the LCD screen indicates the button on the keyboard.

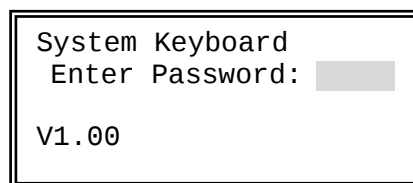
3.2 Start via Keyboard

Keyboard will enter the login option menu after power up without pressing any button.

In the login menu, press**【SHIFT+MENU】**and select camera site controlling log-in menu or keyboard function setup log-in menu.



【 Table 3-1 Keyboard Setup Log-in Interface 】

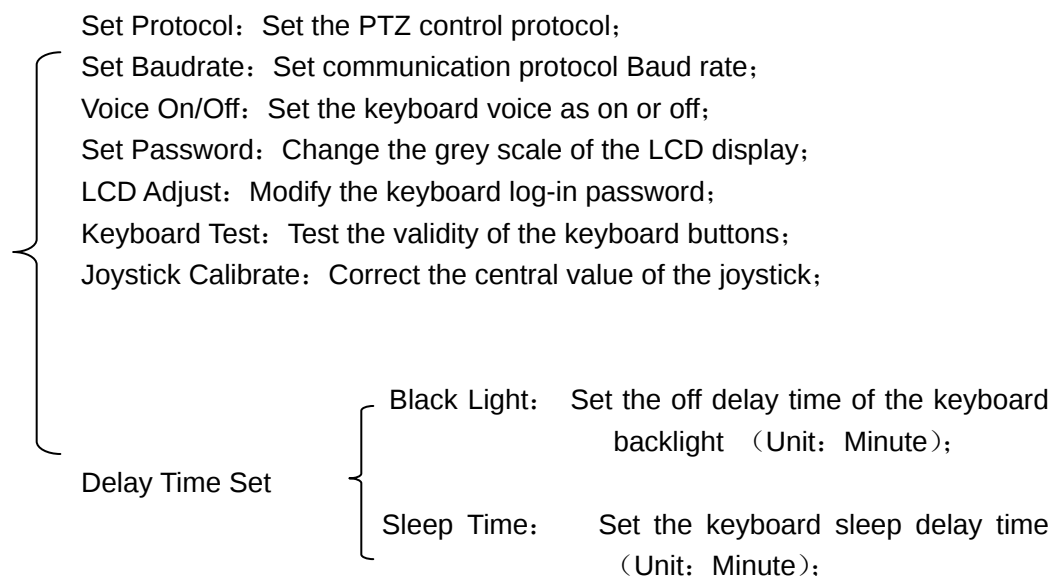


【Table 3-2 Camera Site Controlling Log-in Interface】

3.3 Log-in via Keyboard

- 1) Enter the 6 digit password, and press **【ENTER】** to log in;
- 2) About the password: the default password is "000000".Please modify the password..

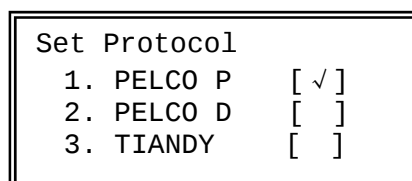
3.4 Menu for Keyboard Function Setup



3.4.1 Protocol Setup

Set keyboard communication protocol: Move the cursor to option "Set Protocol", and press **【ENTER】** to the communication protocol setup interface. This keyboard supports 3 protocols: PELCO P、PELCO D、TIDNDY.

Setup: Move the cursor to the protocol you want to set as, and press **【ENTER】** .



【Table 3-3 Communication Protocol Setup Interface】

3.4.2 Baudrate Setup

Communication baudrate setup: move the cursor to option 2“Set Baudrate”,and press【ENTER】 to the baudrate setup interface. This keyboard supports 4 protocols: 2400bps、4800bps、9600bps、19200bps.

Setup: Move the cursor to the bandrate you want to set as, and press 【ENTER】 .

Set Baudrate		
1. 2400bps	[	]
2. 4800bps	[	]
3. 9600bps	[	√]

【Table 3-4 Baudrate Setup Interface】

3.4.3 Keyboard Voice Setup

Keyboard Voice Setup: Move the cursor to item3“Voice On/Off”,and press【ENTER】 to the keyboard voice setup interface.

Open the voice: Move the cursor to item1“Voice On”,and 【ENTER】 .

Shut the voice: Move the cursor to item2“Voice Off”,and press 【ENTER】 .

Voice On/Off		
1. Voice On	[	√]
2. Voice Off	[	]

【Table 3-5 Keyboard Voice Setup Interface】

3.4.4 Password Management

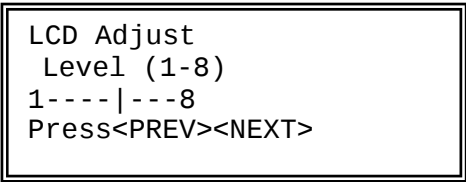
Modify Password: Move the cursor to item4“Set Password”,and press 【ENTER】 to password modification interface in which the user can modify the log-in password.Enter the correct password first and create the new password later.The same new password should be entered twice.The keyboard will save the new password and log off automatically after the user presses 【ENTER】 .

Change Password	
Original Password:	
New Password:	
Confirm Password:	

【Table 3-6 Password Modification Interface】

3.4.5 LCD Setup

Grey scale setup of LCD: Move the cursor to item5“LCD Adjust”, and press 【ENTER】to the LCD setup interface.Press【NEXT】or【PREV】to adjust the grey scale of LCD display.Setup data will be saved automatically when logging off.

A screenshot of an LCD screen showing the 'LCD Adjust' menu. The text on the screen is: 'LCD Adjust', 'Level (1-8)', '1----|---8', and 'Press<PREV><NEXT>'.

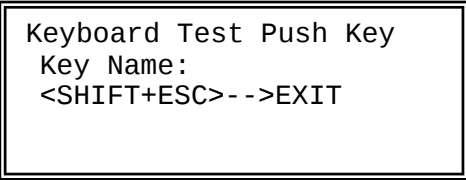
```
LCD Adjust
Level (1-8)
1----|---8
Press<PREV><NEXT>
```

【Table 3-7 LCD Setup】

3.4.6 Keyboard Button Test

Keyboard Button Test: Move the cursor to item6 “Keyboard Test”,and press **【ENTER】** to the keyboard button test interface.

The LCD screen will display name of the current pressed button when the user presses a button .Test **【SHIFT】**button by pressing **【SHIFT】+ 【1】**.Press**【SHIFT】+ 【ESC】** to log off.

A screenshot of the 'Keyboard Test Push Key' interface. The text on the screen is: 'Keyboard Test Push Key', 'Key Name:', and '<SHIFT+ESC>- ->EXIT'.

```
Keyboard Test Push Key
Key Name:
<SHIFT+ESC>- ->EXIT
```

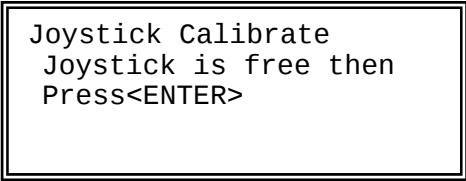
【Table 3-8 Keyboard Test Interface】

3.4.7 Joystick Correction

Joystick Correction: Move the cursor to item7“Joystick Calibrate”,and press **【ENTER】** to the joystick correction interface.

Leave the joystick to the center position,and press **【ENTER】** to correct the position again.Setup data will be saved automatically when logging off.

The joystick has been corrected in the factory,and users can use it without adjustment.The parameters of the joystick may be effected due to different operating environment, and users can restore the accuracy by correction.

A screenshot of the 'Joystick Calibrate' interface. The text on the screen is: 'Joystick Calibrate', 'Joystick is free then', and 'Press<ENTER>'.

```
Joystick Calibrate
Joystick is free then
Press<ENTER>
```

【Table 3-9 Joystick Correction Interface】

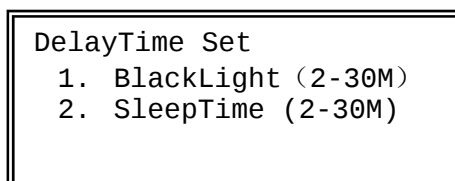
3.4.8 Delay Time Setup

Keyboard supports automatic lock in controlling interface status.Keyboard will switch to lock status without any operating within the delay time.

Delay time setup: Move the cursor to item8 “Delay Time Set”, and press **【ENTER】** to delay time setup interface.

Button backlight delay time setup: Move the cursor to option1, and press **【ENTER】** to the value setup status. Enter value (Unit: Minute) , and press **【ENTER】** .

Lock delay time setup: Move the cursor to option, and press **【ENTER】** to value setup status. Enter value (Unit: Minute) , and press **【ENTER】** .



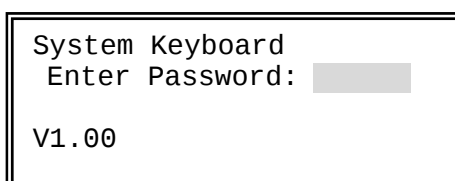
【Table 3-10 Delay Time Setup Interface】

4 Regular Operation

Keyboard controls high speed PTZ directly and realizes scene positioning functions like upward/downward/left/right moving, zoom in/out, focus, and iris via RS-485bus. Functions as PTZ preset position setup and calling, auto scanning, cursing track and pattern tour are also supported. The camera site controlling log-in interface is the default interface when keyboard starts.

4.1 Camera Site Controlling Log-in

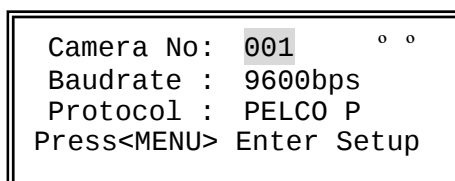
Enter the password in the camera site controlling log-in interface and press **【ENTER】** (The factory default password is “000000”). Please modify the password.



【Table 4-1 Camera Site Controlling Log-in Interface】

4.2 Shortcut Controlling Operation

Enter the correct password to the main camera site controlling interface.



【Table 4-2 Camera Site Controlling Interface】

PTZ Scene Positioning Function : In the main controlling interface, up/down/left/right moving of the joystick can realize controlling of PTZ, the speed of which can be subdivided to level 0~63. Clockwise rotation is for zooming out and counterclockwise rotation is for zooming in. Iris controlling can be realized via iris function button, and please refer to the first chapter as to the iris controlling function button definition.

4.2.1 PTZ Switching

Enter the PTZ No. you want to switch to and press **【CAM】**. This PTZ No. will be set as the current position of the keyboard.

4.2.2 OSD Menu for Controlling Camera

In the main controlling interface, press **【OSD】** to the OSD menu (or calling preset No. 95). As to the OSD menu operation, please refer to the speed dome camera user's manual.

4.2.3 Auxiliary Switching Controlling

In the main controlling interface, press **【ALARM】** to the auxiliary switching controlling interface.

Enter the auxiliary switch serial numbers (1-8 available) you need to control. Press **【ALARM】** to open auxiliary switch. and **【SHIFT】+【ALARM】** to shut auxiliary switch.

RELAY	
No: 1	
Press<ALARM>	Open
Press<SHIFT+ALARM>	Close

【Table 4-3 Auxiliary switch operation】

4.2.4 Preset

Press and hold **【PRESET】** key for 1 second, The LCD will display as the table 4-4 shows. To call a preset position, just input the preset number and press **【PRESET】** key. To set a preset position, just input the preset number and press **【ENTER】** key, then you can set the preset position. Pressing **【NEXT】** key will add 1 to preset number, while pressing **【PREV】** key will subtract 1 from the preset number.

PRESET Function	
No: 001	
Press<PRESET>	to Call
Press<ENTER>	to Set

【Table 4-4 Preset Function Setup】

Preset Setup: Press **【NEXT】**、**【PREV】** to move the cursor to item 1“Set

PRESET", use the joystick to define the wanted position, and press **【ENTER】** .

Set a Title for a Preset: Move the cursor to item 2 "Set PRESET Title", press **【ENTER】** , then you can set the title. The title can be English words or figures, press **【CAM】** to switch. Press **【CLEAR】** to delete. After the input, press **【ENTER】** to confirm. (Please note: Title setup function is only supported by TIANDY protocol.)

```
PRESET 001 Function Set
1. Set PRESET
2. Set PRESET Title
```

【Table 4-5 Preset Setup】

```
PRESET 001 Function Set
PRESET Label
Type: ABC <CAM>-Switch
      <      >
```

【Table 4-6 Preset Title Setup】

4.2.5 Auto Scan

Press and hold **【SCAN】** key for 1 second, The LED shows the auto scan function setup. Input the wanted auto scan number, press **【SCAN】** , it will start the auto scan. Press **【SHIFT】** + **【SCAN】** to stop. Press **【ENTRE】** to enter the auto scan setup.

```
SCAN Function
No: 1
Press<SCAN>    to Call
Press<ENTER>   to Set
```

【Table 4-7 Auto Scan】

Set auto scan left limit: move the cursor to item 1 "Left". Use joystick to define the left limit, press **【ENTER】** to confirm.

Set auto scan right limit: move the cursor to item 1 "right". Use joystick to define the right limit, press **【ENTER】** to confirm.

Auto scan speed setup: move the cursor to item 3 "Speed", press **【ENTER】** and input the value of the speed, press **【ENTER】** to confirm.

```
SCAN 1 Function Set
1. Left
2. Right
3. Speed
```

【Table 4-9 Auto Scan Setting】

SCAN 1 Function Set
SCAN Speed
Speed Level(1-30)20

【Table 4-9 Auto Scan Speed Setup】

4.2.6 Cruising Track

Press and hold **【TOUR】** for 1 second to enter. Input the wanted tour number, press **【TOUR】** then it will start the tour. Press **【SHIFT】** + **【TOUR】** to stop the tour, press **【ENTER】** to enter setup.

TOUR Function
No: 1
Press<TOUR> to Call
Press<ENTER> to Set

【Table 4-10 Cruising Track Operation】

Tour intervals setup: move the cursor to item 1 "Interval(1-60Sec)", press **【ENTER】** to enter, input value and press **【ENTER】** to confirm.

Cruising Track Presets Setup: move the cursor to item 2, press **【ENTER】** to enter. There could be up to 11 presets for each Cruising track. Input the wanted presets' number. Press **【NEXT】** to switch to the next preset, and **【PREV】** to the previous one.

TOUR 1 Function Set
1. Interval(1-60Sec)
2. Add TOUR Presets

【Table 4-11 Cruising Track Setup】

TOUR 1 Function Set
Add TOUR Presets
001
— — — — —
— — — — —

【Table 4-12 Cruising Track Presets Setup】

4.2.7 Pattern Tour

Press and hold **【PATTERN】** for 1 second to enter. Input the wanted pattern tour number. Press **【PATTERN】** to start. Press **【SHIFT】** + **【PATTERN】** to stop the pattern tour. Press **【ENTER】** to enter setup.

PATTERN Function No: 1 Press<PATTERN> to Call Press<ENTER> to Set
--

【Table 4-13 Pattern Tour Operation】

Pattern Tour Setup: Move the cursor to item 1“Start”, press **【ENTER】**to start setup.
The PTZ movements will be recorded.

End Pattern Tour: Move the cursor to item , press **【ENTER】** to end.

PATTERN 1 Function Set 1. Start 2. Stop
--

【Table 4-14 Pattern Tour Setup】

4.3 PTZ Function Menu

Under main menu, press **【MENU】** to enter PTZ function setup. Move joystick downward or press **【NEXT】** to move the cursor downward. Move the joystick upward or press **【RPEV】**to move the cursor upward. Move the joystick rightward or press **【ENTER】** to enter submenu, move the joystick leftward or press **【ESC】** to go back to previous menu.

Dome Setup 1. PRESET Set 2. SCAN Set 3. TOUR Set 4. PATTERN Set 5. Flip Set 6. Home Set 7. Alarm Set

【Table 4-15 PTZ Function Setup】

For functions of preset, scan, tours, and pattern, please refer to chapter 4.2.

4.3.1 Auto Flip

Move the cursor to item 5“Flip Set”, press **【ENTER】** to enter Auto Flip setup.
Open Auto Flip: Move the cursor to item 1“Flip ON”, press **【ENTER】** to confirm.
Close Auto Flip: Move the cursor to item 2“Flip OFF”, press **【ENTER】** to confirm.

Flip Set	
1. Flip ON	[√]
2. Flip OFF	[]

【Table 4-16 Auto Flip Setup Menu】

4.3.2 Home Position

Move the cursor to item 6“Home Set”, press **【ENTER】** to enter home position function setup. Open guard location: Move the cursor to item 1“Home Open”, press **【ENTER】** to confirm.

Close home position: Move the cursor to item 2“Home Close”, press **【ENTER】** to confirm。

Home Position Idle Time Setup: Move the cursor to item 3“Idle Time(1-4Min)”, press **【ENTER】** to enter value. Input value and press **【ENTER】** to confirm

Home Set	
1. Home Open	[√]
2. Home Close	[]
3. Idle Time(1-4Min)	
4. Set Home Triggering	

【Table 4-17 Home Position Setup Menu】

Home Position Triggering Setup: Move the cursor to item 4“Set Home Triggering”, press **【ENTER】** to enter home triggering setup. Move the cursor to the wanted function and press **【ENTER】** to confirm.

Set Home Triggering	
1. PRESET	[√]
2. SCAN	[]
3. TOUR	[]
4. PATTERN	[]

【Table 4-18 Home Position Function Setup】

4.3.3 Alarm Triggering

Move the cursor to item 7“Alarm Set”, press **【ENTER】** to enter alarm triggering setup. Open Alarm Triggering: Move the cursor to item 1“Alarm Enable”and press **【ENTER】** to confirm.

Close Alarm Triggering: Move the cursor to item 2“Alarm Disenable”and press **【ENTER】** to confirm.

Alarm Set	
1. Alarm Enable	[√]
2. Alarm Disenable	[]
3. Set AlarmTriggering	

【Table 4-19 Alarm Trigger Setup】

Alarm Trigger Setup: Move the cursor to item 3 “Set AlarmTriggering”, press **【ENTER】** to enter setup. Move the cursor to the wanted function and press **【ENTER】** to confirm.

Set AlarmTriggering		
1. PRESET	[	√]
2. SCAN	[	]
3. TOUR	[	]
4. PATTERN	[	]

【Table 4-20 Alarm Triggering Setup】