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Welcome

Thank you for purchasing our control keyboard!

This operating manual is designed to be a reference tool for the operation of your keyboard. Here you can find information about this keyboard features and functions, as well as a detailed menu tree.

Before operation please read the following safeguards and warnings carefully!
Important Safeguarding and Warnings

All installation and operation should conform to your local electrical safety codes. We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

All the examination and repair should be done by the qualified service engineers. We are not liable for any problems caused by unauthorized modifications or attempted repair.
1 Feature and Specification

1.1 Feature

This series keyboard has the following features:

- One keyboard can control multiple DVRs, or you can use multiple keyboards to control one DVR.
- Support dome operation.
- Support RS485 port and RS232 port.
- Support PTZ operation via joystick.
- Support all operations you get from DVR front panel function keys.
- Support keyboard lock function.
- Support multi-level operation rights.
- Support single or multiple DVRs’s menu setup.
- On-screen menu, user-friendly procedure. It is very easy for you to operate.

1.2 Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Temperature</td>
<td>0°C - 55°C</td>
</tr>
<tr>
<td>Weight</td>
<td>2.5 Kg</td>
</tr>
<tr>
<td>Dimension</td>
<td>320mm x 190mm x 50mm (includes joystick height 100mm)</td>
</tr>
<tr>
<td>Working Power</td>
<td>12VDC 1200mA</td>
</tr>
<tr>
<td>LCD Dimension</td>
<td>84mm x 31 mm</td>
</tr>
</tbody>
</table>
2 Keyboard Function

2.1 Keyboard Appearance

1. Function key: There are three function keys: SETUP/ALARM/SHIFT
2. LCD: Here is to display on-screen menu.
3. Indication light: There are six indication lights. DVR/DOME/ALT/COM/ALARM/POWER.
4. DVR function: Here are operation keys for you to control DVR.
5. Public function: Here includes ten numeral keys, four direction keys, ESC/ENTER and ID/CAM.
6. Dome matrix function: Here are operation keys for you to control dome or matrix.
7. Joystick
8. Assistant function: from AUX1 to AUX 6, log and lock key.

2.2 Key Function List

<table>
<thead>
<tr>
<th>Serial numb</th>
<th>Name</th>
<th>Symbol</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function key</td>
<td>Setup</td>
<td>SETUP</td>
<td>Shortcut key to enter function setup menu</td>
</tr>
<tr>
<td></td>
<td>Alarm</td>
<td>ALARM</td>
<td>Shortcut key to enter alarm setup menu</td>
</tr>
<tr>
<td></td>
<td>Shift</td>
<td>SHIFT</td>
<td>Switch between input methods</td>
</tr>
<tr>
<td>LCD</td>
<td>Liquid crystal display</td>
<td>DVR</td>
<td>Light turns on when connected with DVR</td>
</tr>
<tr>
<td>Indication light</td>
<td>DVR indication light</td>
<td>DOME</td>
<td>Light turns on when connected with dome</td>
</tr>
<tr>
<td></td>
<td>Dome indication light</td>
<td>ALT</td>
<td>Light turns on when connected with other device</td>
</tr>
<tr>
<td><strong>Serial port indication light</strong></td>
<td>COM</td>
<td>Light turns on when connected with serial port device</td>
<td></td>
</tr>
<tr>
<td><strong>Alarm indication light</strong></td>
<td>ALARM</td>
<td>Light turns on when connected with alarm devices</td>
<td></td>
</tr>
<tr>
<td><strong>Power indication light</strong></td>
<td>POWER</td>
<td>Light turns on when keyboard connected with power and works properly.</td>
<td></td>
</tr>
<tr>
<td><strong>DVR function key</strong></td>
<td><strong>Assistant function key</strong></td>
<td>Fn1</td>
<td>In single surveillance mode, click Fn1 to display PTZ and image color setup menu. In motion detection setup, working with other keys. When playback, click Fn1 to display or hide process bar.</td>
</tr>
<tr>
<td></td>
<td><strong>DVR assistant function key 2</strong></td>
<td>Fn2</td>
<td>In DVR menu, click Fn2 to select an input method.</td>
</tr>
<tr>
<td><strong>Tour</strong></td>
<td>✨</td>
<td>Activate tour function</td>
<td></td>
</tr>
<tr>
<td><strong>Single window display mode</strong></td>
<td>□</td>
<td>Single window display mode</td>
<td></td>
</tr>
<tr>
<td><strong>Four window display mode</strong></td>
<td>◆</td>
<td>Turn to four window display mode</td>
<td></td>
</tr>
<tr>
<td><strong>Nine window display mode</strong></td>
<td>■</td>
<td>Turn to nine window display mode</td>
<td></td>
</tr>
<tr>
<td><strong>Sixteen window display mode</strong></td>
<td>▲</td>
<td>Turn to sixteen window display mode</td>
<td></td>
</tr>
<tr>
<td><strong>Record</strong></td>
<td>●</td>
<td>Record/play</td>
<td></td>
</tr>
<tr>
<td><strong>Backward /Pause</strong></td>
<td>⏯ / ⏯</td>
<td>Video backward play or pause</td>
<td></td>
</tr>
<tr>
<td><strong>Play frame by frame</strong></td>
<td>➔</td>
<td>Play video frame by frame</td>
<td></td>
</tr>
<tr>
<td><strong>Play /Pause</strong></td>
<td>▶ / ▶</td>
<td>Play/pause When DVR is in real-time surveillance mode, system goes to video search menu.</td>
<td></td>
</tr>
<tr>
<td><strong>Fast backward</strong></td>
<td>◄</td>
<td>Fast backward playback</td>
<td></td>
</tr>
<tr>
<td><strong>Slow play</strong></td>
<td>►</td>
<td>Various slow play speeds</td>
<td></td>
</tr>
<tr>
<td><strong>Fast forward</strong></td>
<td>&gt;&gt;</td>
<td>Various fast play speeds</td>
<td></td>
</tr>
<tr>
<td>Function</td>
<td>Key</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Previous</td>
<td>⬅</td>
<td>Play the previous video</td>
<td></td>
</tr>
<tr>
<td>Next</td>
<td>➤</td>
<td>Play next video</td>
<td></td>
</tr>
<tr>
<td>Reverse play frame by frame</td>
<td>←</td>
<td>Reverse play frame by frame</td>
<td></td>
</tr>
<tr>
<td>Character and numerals</td>
<td>0-9</td>
<td>Switch between numeral/characters, click Shift to switch.</td>
<td></td>
</tr>
<tr>
<td>Device ID</td>
<td>ID</td>
<td>Shortcut key to go to ID control point search</td>
<td></td>
</tr>
<tr>
<td>Device channel number</td>
<td>CAM</td>
<td>Control DVR channel</td>
<td></td>
</tr>
<tr>
<td>Cancel</td>
<td>ESC</td>
<td>Cancel current operation</td>
<td></td>
</tr>
<tr>
<td>Confirm</td>
<td>ENTER</td>
<td>Confirm current operation</td>
<td></td>
</tr>
<tr>
<td>Direction keys</td>
<td>↑ up</td>
<td>In single surveillance mode, click up/down to switch between various channels.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>↓ down</td>
<td>Modify numeral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>⇐ left</td>
<td>Modify setup</td>
<td></td>
</tr>
<tr>
<td></td>
<td>⇨ right</td>
<td>PTZ control switch</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>In dynamic surveillance mode, click left/right key to switch between single window display and multiple window display mode.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PTZ control switch</td>
<td></td>
</tr>
<tr>
<td>Dome/Matrix key function</td>
<td>PREV</td>
<td>In dome menu, working with other keys.</td>
<td></td>
</tr>
<tr>
<td>Dome menu</td>
<td>MENU</td>
<td>In dome menu, click this key to enter dome menu shortcut key.</td>
<td></td>
</tr>
<tr>
<td>Next page</td>
<td>NEXT</td>
<td>In dome menu, working with other keys.</td>
<td></td>
</tr>
<tr>
<td>Scan</td>
<td>SCAN</td>
<td>System pops up scan menu</td>
<td></td>
</tr>
<tr>
<td>Tour</td>
<td>AUTO-PAN</td>
<td>System pops up auto tour menu</td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>PATTERN</td>
<td>System pops up pattern menu</td>
<td></td>
</tr>
<tr>
<td>Set preset</td>
<td>SET</td>
<td>System pops up preset setup menu</td>
<td></td>
</tr>
<tr>
<td>GOTO preset</td>
<td>GOTO</td>
<td>System pops up go to preset menu</td>
<td></td>
</tr>
<tr>
<td>Remove preset</td>
<td>REMOVE</td>
<td>System pops up delete preset menu</td>
<td></td>
</tr>
<tr>
<td>Iris zoom in</td>
<td>TELE</td>
<td>PTZ iris zooms in</td>
<td></td>
</tr>
<tr>
<td>PTZ</td>
<td>P/T</td>
<td>PTZ operation shortcut key</td>
<td></td>
</tr>
<tr>
<td>Iris zoom out</td>
<td>WIDE</td>
<td>PTZ iris zooms out</td>
<td></td>
</tr>
<tr>
<td>Focus zoom in</td>
<td>NEAR</td>
<td>PTZ focus zooms in</td>
<td></td>
</tr>
<tr>
<td>Wiper</td>
<td>WIPER</td>
<td>Shortcut key to control dome wiper operation</td>
<td></td>
</tr>
<tr>
<td>Focus zoom out</td>
<td>FAR</td>
<td>PTZ focus zooms out</td>
<td></td>
</tr>
<tr>
<td>Lens zoom out</td>
<td>CLOSE</td>
<td>PTZ lens zoom out</td>
<td></td>
</tr>
<tr>
<td>Assistant function key</td>
<td>OPEN</td>
<td>LIGHT</td>
<td>Assistant menu and function key operation.</td>
</tr>
<tr>
<td>------------------------</td>
<td>------</td>
<td>-------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Lens zoom in</td>
<td>PTZ lens zoom in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td>Control dome light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joystick</td>
<td>Assistant key</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUX1-------</td>
<td>LOG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUX6</td>
<td>LOG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOG</td>
<td>Shortcut key to search log files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCK</td>
<td>Shortcut key to lock keyboard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Keyboard Ports

![Keyboard Ports Image](image)

1. RS485  
2. RS232  
3. Power

### 2.4 Port Features

RS232 can directly connect with DVR. The distance should be within 10m. RS485 transmission distance is 1200 m (9600bps), max 3000 m. In level-link mode, one RS-485 port can connect with as many as 16 keyboards.

### 2.5 Power

The keyboard use +12V DC, you can use +12V adapter included in the accessories package.
3 Menu Tree

Key board menu tree is shown as below.

- **MENU**
  - **Menu Operation**
    - **Local**
      - Time Setting
      - Address Setting
    - **CTL Point**
      - ID
      - Device Name
      - Device Type
      - Connection Type
      - **Password**
      - User Management
      - Default
      - Empty Point
    - **Advance**
      - Backlight
      - Alarm Setup
      - Language
      - Auto Lock
    - **Assistant**
      - **Date**
      - Current Connection Type
    - **System Infor**
      - **ID**
      - **Machine**
      - RS232
      - RS485
      - **Point Information**
      - **Version**
3.1 Input Method
Click SHIFT, you can switch between numeral/capitalized character/small character.
- ☛: Numeral
- A: Capitalized character
- @ Small character.

3.2 Log in
Plug in power socket, power indication light is on. You can see welcome information in LCD.

<table>
<thead>
<tr>
<th>Network keyboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-12-20</td>
</tr>
</tbody>
</table>

Click Enter or SETUP, system pops up a dialogue box. Now you can input user name and password.
The default user name is admin, password is 888888.

| User name: |
| Password: |

3.3 Log out
Please exit the menu and then unplug the power cable to log out.
4 Menu Operation

Menu operation includes five items:
- Local setup
- CTL point
- Advance
- Assistant
- System information

There are two ways for you to operate:
- Use left/right d keys to move cursor to select property and then use up/down to select other menu to set. For special menu setup please click ENTER to confirm or ESC to cancel.
- Use joystick to control. The joystick works as direction keys.

4.1 Local Setup

Local setup includes the following items
- Time setup
- Address setup

4.1.1 Time Setup
Here is for you to input local device time. Move the cursor to highlight corresponding item and then input the numeral.

```
YY: 2006    Mo: 12 DD31
HH: 14        MI: 13 SE: 22
```

4.1.2 Address Setup
Address value ranges from 0 to 255. Default factory setup is 0. When in level-link mode, 0 has the highest priority.

```
Address setting: 0
```

4.2 CTL Point

CTL point includes the following items:
- ID
- Device name
- Device type
- Connection type

```
ID:*3
Dev name: DVR-1
Dev Type: DVR
Connection type: RS232
```
4.2.1 ID
Here is for you to input front device ID.
Move the cursor to highlight ID and then use input numeral.
If there is a * before the ID number (such as *3), it means that front device has
control point setup.
You can view device *3 corresponding type and name.

4.2.2 Device Name
Here is for you to input device name. You can use various input methods to give a
name to the front device,

4.2.3 Device Type
There are several options: DVR/dome/matrix/NVS. You can use left/right key to
select.

4.2.4 Connection Type
There are several options: RS232/RS485. You can use left/right key to select
corresponding connection type.
Please refer to the following figure for more information.

```
Connection Type
```

```
RS232 Connection
- RS232 Address
- Baud Rate
- Protocol
- Data Bit
- Parity Bit
- Stop Bit
```

```
RS485 Connection
- RS485 Address
- Baud Rate
- Protocol
- Data Bit
- Parity Bit
- Stop Bit
```

After you have selected connection type, please click ENTER to go on connection
setup.

4.2.4.1 RS232
When connection type is RS232, click ENTER key you can see an interface ask you
to input the following information
- 232ADD
- PRTCL
- Baud
- D-bit
- O_E VFY
- S-bit
4.2.4.2 RS485
When connection type is RS485, click ENTER key you can see an interface ask you to input the following information
- 232ADD
- PRTCL
- Baud
- D-bit
- O_E VFY
- S-bit

Note:
All the setup here should conform to your current connection type.
If you input connection type is RS232, you front device should connect with keyboard via RS 232 port. Otherwise you can not use keyboard to control current device!
All listed items here should not leave in blank, otherwise you can not use fast search function.
After all the setup, click ESC to exit, system prompt you to save current setting.

4.3 Advance
4.3.1 Password
Here is for you to modify password.
We recommend you input a six-bit password including numeral and characters.
Administrator can modify password for all users.
Ordinary user can only modify login account password.
4.3.2 User Management

User management is for administrator only.
Administrator can add, delete or modify user, set power for each user.
Ordinary user can only modify its own password and operate all functions within power setting limit.
Guest can not operate functions. He can only review DVR video or check version information.

4.3.2.1 Add User
Here is for you to add a new user. You can input new user name and password.
Move the cursor to highlight Pwer, please use left key to modify user property (User/guest) and then use right key to highlight user power and click Enter to confirm.
You can see there is an icon ● after your option.

- Pan ctrl
- System
- BAK
- Senior

4.3.2.2 Delete user
You can select corresponding user and then click ENTER to delete.

4.3.2.3 Power setting
Here you can select power for each user.
Use left and right key to highlight correspond right and click ENTER to confirm.
Icon ○ means current user does not have this right
Icon ● means current user has current right.
In the following image, current user is 1 and this account can operate Pan Ctrl and system function, BAK and senior right is disabled.
4.3.3 Set Local as Default  
Here is for you to restore factory default setup.  
Note: when you operate this function, please be careful!

Set Local as Default?  
Yes: ENTER No: Esc

4.3.4 Empty Control Point  
Here is for you to delete all control point information.  
Click ENTER to clear all.

Clear ALL CTL Point?  
Yes: ENTER No: Esc

4.4 Assistant Setup  
Assistant setup includes the following items:

- Backlight Setup  
You can open LCD backlight. It will last for ten minutes.  
When you log in the next time, backlight automatically turns on  

- Alarm Setup  
You can turn on alarm function.  

- Language  
There are three options: English/Simplified Chinese/Traditional Chinese.  

4.4.4 Auto Lock  
Here is for you to set auto lock interval. There are four options: 10/30/60/close (Unit: minute).  
When keyboard is inactive for specified interval, it becomes locked. You need to log in again to operate keyboard.  
Close means disable auto lock function, keyboard always maintain active.

4.5 System Information  
System information includes the following items.

- Version: here is to display system version. (for reference only)  
- Date: here is to display system released date. (for reference only)  
- Connection type: here is to display current connection type.  
  You can click ENTER to view type (serial port or network)  
- Point information
4.5.1 Search Point
You can input either of the following information to search one device. System can automatically connect with that device and you can use keyboard to control it. For control keyboard:

You can click ENTER to go to the above menu and then input corresponding property to search.
E.g.: If you want to search a device of ID3. Input ID as 3 and then click ENTER to confirm.
System pops up the following interface, ID 3 is a dome and its RS232 address is 3. System automatically connects the dome. Now you can use keyboard to control current dome.

Note: when you use keyboard to control DVR, please click ID and then click ESC to go back to previous menu.
When you use keyboard to control other device, click ESC to go back to previous menu.
5 Keyboard Control DVR

5.1 Serial Port Connection

5.1.1 RS232 Serial Port Connection
Use one RS232 cable to connect DVR serial port and keyboard serial port together. DVR address number ranges from 1 to 255, please refer to DVR manual for more information.

![RS232 cable](image1)

5.1.2 RS485 Connection
One RS232 port can only connect with one DVR. You need to use RS 485 port once you want to control more than one DVRs. You can use a standard RS485 to RS 232 box connect with DVR 232 port.

RS 485 port pins definition:

- PIN1: +5V power supply
- PIN2: Alarm output
- PIN3: RS485 A line
- PIN4: Blank
- PIN5: GND
- PIN6: Alarm input
- PIN7: RS485 A line
- PIN8: RS485 B line
- PIN9: RS485 B line

![RS485](image2)
Rs485 connection via converter

One 485 bus can connect with thirty-two RS485->232 converters, one RS485->232 converter can connect with twelve DVRs.

5.1.3 Multi-keyboard level-link via RS485

Multi-converter connection:
The last converter on RS 485 port must be short circuited. (E.g.: open converter). See the image below, you need to change [1-2] short circuit to [2-3] short circuit.

Note:
Menu serial setup should conform to the device you connected; otherwise keyboard can not control the device!

5.2 DVR and Keyboard Setup
5.2.1 DVR Setup
Before operation, please make sure cable connection is proper.
In DVR menu, from “Setting” to RS232.
The default setup is shown as below.
- Function: Keyboard
- Baud rate: 9600
- Data bit: 8
- Stop bit: 1
- Parity: none.
Please note keyboard setup should conform to DVR setup.

5.2.2 Keyboard Setup after Serial Port Connection
In menu, go to control point setup. Here you need to input the following information.

- ID
  If there is a * before the ID number (such as *3), it means this front device has control point setup.
  You can view device *3 corresponding type and name.
- Device name
  Here is for you to give a name to the front device.
- Device type
  There are several selections such as DVR/Dome/CMS/NVS. You can use left/right key to select device type and then click up/down to go on setup.
- Connection type
  Please use up/down to highlight connection type and then use left/right to select type.
  Click “ENTER” to set the following items:
- 232 address
- Parity
- Protocol
Stop bit
Baud rate
Data bit

| 232 Add: 8 | Parity: None |
| Protocol: DH2 | Stop bit: 1 |
| Baud rate: 9600 |
| Data bit: 8 |

Note: 232 address and 485 address are corresponding DVR local number.
DH2 is network keyboard/2nd generation control keyboard protocol, its corresponding DVR serial port protocol is network keyboard protocol.
DH1 is the first generation keyboard protocol, its corresponding DVR serial port is control keyboard protocol or Dahua protocol.

5.2.3 Keyboard Setup after Network Connection
Use up/down to highlight connection type and then use left/right to select connection type.
Click “ENTER” to go to setup.
After all the setup, click ESC to exit. System pops up the dialogue box to prompt you save setup

CTL point IP: 192.168.090.111
CTL port: 3777
Protocol: DH-2

Save data?
YES: ENTER  NO: ESC

5.3 Operation
5.3.1 Login
You can use the following ways to login: ID, device name, IP, 232 address, 485 address.
Click ENTER to go to setup interface, input you information and click ENTER to begin search.
System automatically begin login if search is OK.
System pops up the alert information if there is no search result.
Note:
Before you login, please log off DVR local user menu, local user priority is higher than the keyboard user!
5.3.2 Logout
Click ID key and then click ESC, you can logout current control menu.

5.3.3 Record
Click record button (●) to go to record interface. You can use direction keys to modify channel name and status. Click ENTER to save modification, click ESC to exit without saving modification you have done.

5.3.4 PTZ Control and Image Color
In single window display mode, click Fn1, system pops up PTZ and image color menu. Or you can click P/T in the keyboard to go to DVR control menu.

5.3.5 Tour and Single/Multiple Window Switch.
Note: before click tour key, please make sure your current series DVR supports tour function.
You can click tour key (↺) to begin touring.

□  ▴  ■  ▮ are corresponding to :One/four/nine/sixteen window display modes.
You can click numeral key to go to corresponding channel. E.g. you can click numeral 1 to go to channel one.
For channel number more than two-digit (such as numeral 11), you need work with CAM key.
E.g., you want to go to channel 12 then you input CAM+12+CAM.
6 Keyboard Control Dome

6.1 Cable Connection
Please make sure keyboard AB line and dome AB line connection is right. Connect dome to power, and then connect dome video cable to the monitor. Before operating, please go to dome menu to go on setup. If dome address is 1, then keyboard RS 485 address is 1.

6.2 Keyboard Setup
In keyboard menu, go to control point. Here you can input ID, device name. You can use left/right key to select device type. Use up/down to highlight connection type, then click ENTER to go to RS 485 setup. 485 address is 1, default protocol is DH-SD. You can select in accordance with you actual demands.
After all the setup, click Enter to save setup or you can click ESC to exit without saving the modification you have done.

6.3 Operation
Before operation please note:
- X value varies due to different protocols.
- Please use up/down to move dome operation menu.
- Use left/right to move cursor.
- All the operations here are based on DH-SD protocol. There may be some difference for various protocols.

Now you can click ID key and input ID number to enter current device connection interface.
Click MENU, the interface is shown as below.
The menu here should work with dome menu.

<table>
<thead>
<tr>
<th>1. up</th>
<th>5. Previous menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. down</td>
<td>6. Next menu</td>
</tr>
<tr>
<td>3. Left</td>
<td>7. Confirm</td>
</tr>
<tr>
<td>4. Right</td>
<td>8. Exit</td>
</tr>
</tbody>
</table>

### 6.3.1.1 Speed
It is to control direction. The value ranges from one to eight. Please use the number buttons of the keyboard to input value (between 0~8) and press ENTER to confirm. (Operation here is only active with key-press. You can use joystick to control speed directly.)
PTZ movement direction
- For joystick: up/down/left/right/up left/right down/up right/left down.
- For keyboard: up/down/left/right

### 6.3.1.2 Zoom/focus/Iris
- Zoom: please use WIDE and TELE to control PTZ zoom.
- Focus: please use FAR and NEAR to control PTZ focus.
- Iris: Please use CLOSE and OPEN to control PTZ aperture.
You can use joystick to control lens, clockwise is to zoom out and anti-clockwise is to zoom in.

### 6.3.2 Preset
#### 6.3.2.1 Preset setup
After zoom and PTZ setup, input value and click ENTER to confirm.
Now you have set one preset.
#### 6.3.2.2 GOTO
Move cursor to highlight GOTO.
Input preset value and click ENTER.
System goes to specified preset.
#### 6.3.2.3 REMOVE
Move cursor to highlight REMOVE. Input preset value and click ENTER.
Now you have removed one preset.
**Note:** Some protocols do not support remove preset function. You can modify to replace the previous one.

### 6.3.3 Scan
#### 6.3.3.1 Scan setup
①. Input value and then move cursor to highlight left limit.
Or you can use joystick to move camera to left limit and then click ENTER.
②. Repeat procedure one to set right limit.
③. Move cursor to highlight speed. Input speed value and click ENTER to confirm.
#### 6.3.3.2 Scan operation
④. Use up/down to highlight scan. Input scan value and click ENTER to begin scanning.
6.3.4  Tour

6.3.4.1 Tour setup
Use up/down keys to highlight add to tour. Input value in tour group.
For example, here we want to add tour point 2 and 3 in tour group 1.
- Firstly, input 1 in tour group.
- Secondly, input 2 to tour and then click ENTER.
  Now you have added tour point 2 to tour group 1.
- Thirdly, input 3 to tour and then click ENTER.
  Now you have added tour point 3 to tour group 1.
You can repeat the above procedures to add more tour point.

6.3.4.2  Tour operation
- Speed
  Please use up/down keys to highlight tour setup. When cursor is before speed, you can input speed value.
- Duration
  Use left/right keys to highlight duration and then you can input interval value.
- Begin touring
  Use up/down to highlight tour and then input value.
  Now you can click ENTER to begin tour.
- Stop touring
  Move cursor to highlight stop and then click ENTER. Now you have stopped touring

6.3.4.3  Remove

6.3.4.3.1 Remove tour
Move cursor to highlight remove tour and then input corresponding value.
Click ENTER to delete current tour.

6.3.4.3.2 Remove tour point
- Move cursor to highlight tour group and then input corresponding value.
- Please click Enter to confirm all the operation below is active to current tour group.
- Move cursor to highlight tour point and input corresponding value (such as 2).
- Now click ENTER to delete.
For example, you want to remove tour point 5 and 6 from tour group 2.
- Firstly, input 2 in tour group and click ENTER.
- Secondly, input 5 in tour point and click ENTER. Now you have deleted tour point 5.
• Thirdly, input 6 in tour point and click ENTER. You have deleted tour point 6.

6.3.5 PATTERN
6.3.5.1 Pattern setup
• Move cursor to highlight pattern and then input pattern value. Input value is the pattern path you want to set (Maximally support five paths). Click ENTER to confirm.
• Move cursor to highlight start and then input pattern value. Now click ENTER to confirm.
• Move cursor to highlight stop. Input pattern value and click ENTER to stop pattern. Dome will automatically memorize all the operations you have done.

6.3.5.2 Pattern operation
• Please use up/down keys to highlight pattern. When cursor is before start, please input pattern value and then click ENTER to begin patterning.
• Move cursor to highlight stop and then click ENTER. System stop pattern.

6.3.6 Pan Rotation
Move cursor to highlight speed. Input speed value (the speed you want) and click ENTER. Then move cursor to highlight start and then click ENTER. Dome begins pan rotation. Move cursor to highlight stop and then click ENTER. Dome stops rotation.
7 Control Keyboard Upgrade

Control keyboard does not support network upgrade. Please ship your control keyboard back to our factory to upgrade.
8 Make Serial Port

Keyboard standard accessories package includes the following items.
- One DB9
- Seven DB9
- One six-pin crystal port
- One 25-pin (DB25)
- One 485 transmission box. (Including one power adapter.)

8.1 RS232 Serial Port

8.2 RS485 Serial Port

8.3 25-pin Port and Switch Box Connection

Connect converter 25-pin box RS232 port with DVR RS232 port. (25-pin outlet supports maximum twelve RS232 ports. Switch is just for sending not for receiving. So you can use two cables: GND and TXD)
485 switch box and DVR connection

Note: you can use standard RS232 port to connect keyboard with DVR.

Slight difference may be found in user interface.
All the designs and software here are subject to change without prior written notice.
Please visit our website for more information.