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## Summary

This network control keyboard is a powerful three-dimensional with multi-function , Easy to operate, no need to make any setting,plug and play; powerful hardware decoding capabilities, the first to achieve industry IP dome unlimited access for large safe City projects, support 5.0 "LED LCD HD real-time display; Support HDMI output to achieve the main console screen and control equipment screen salvo (comes matrix switching function), reducing installation costs!

To support ONVIF2.4, back-end PTZ not restricted by manufacturer , wide compatibility, with PTZ tour, A-B scan, 360°, pattern and so on functions.

## Production Feature

1. Supports Tour,360 Scan and A-B Scan and so on function ;
2. To support ONVIF2.4,not limit for back-end PTZ, easy to realize PTZ tour, A-B scan, pattern, play and plug, without any set, automatically add and allocate IP address by keyboard;
3. Standard equipped with dimensional control, 1-64 grade speed limit, precise position, control sensitively;
4. Chinese and English switch ;
5. To support USB、HDMI interface output, can be realize main screen picture any switch on control board;
6. To support 5.0"HD LED , real display image on control device;

## Technical Specification

Model Name	Network keyboard controller
Model	SDK95
Control Mode	Network
Controllable Device	Network High Speed Dome, High Speed Dome
Screen display	5.0" HD LED Display
Interface	1 RJ45, 2 RS485( reserved ), 1 DC12V, 1HDMI output, 1 USB port
Ambient Temp.	-20°~55°
Power Supply	DC12V/2A
ONVIF	ONVIF2.4
Joystick	Three-dimensional joystick
Language	Chinese/English
Access Device No.	No upper limit( display by single picture)
Image Switch Mode	Serial number or mouse
Product Size	260mm*160mm*48mm
Weight	Gross: 1.52KG / Net:1.0KG
Carton Size	300mm*210mm*160mm

# 1. Panel and Interface Introduction

## 1.1 Front panel and function buttons introduction

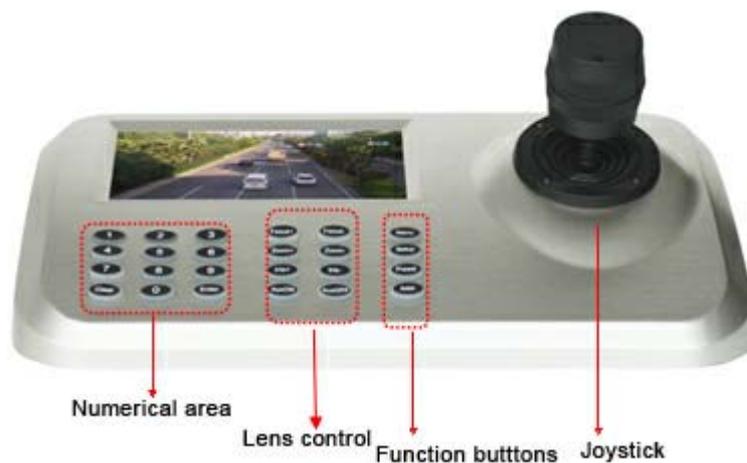


Fig.1

## 1.2 Rear panel interface introduction

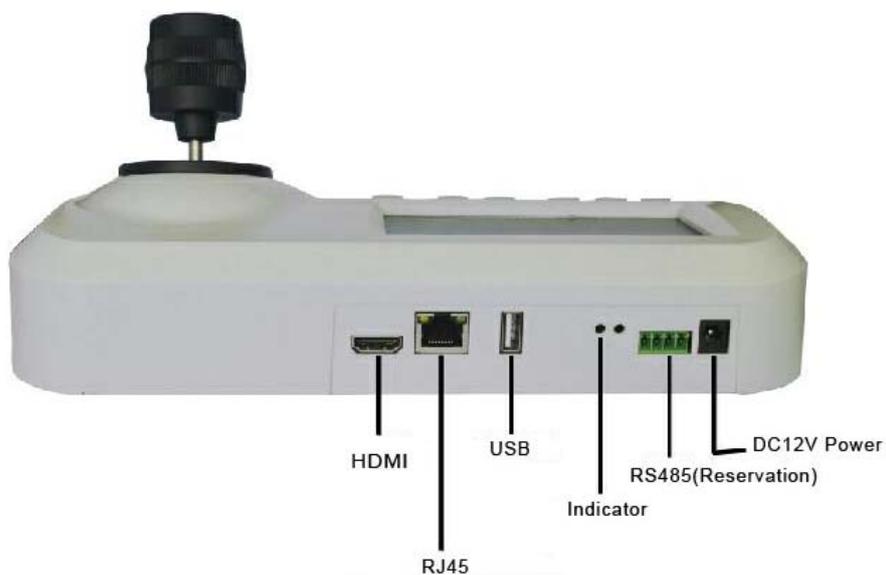
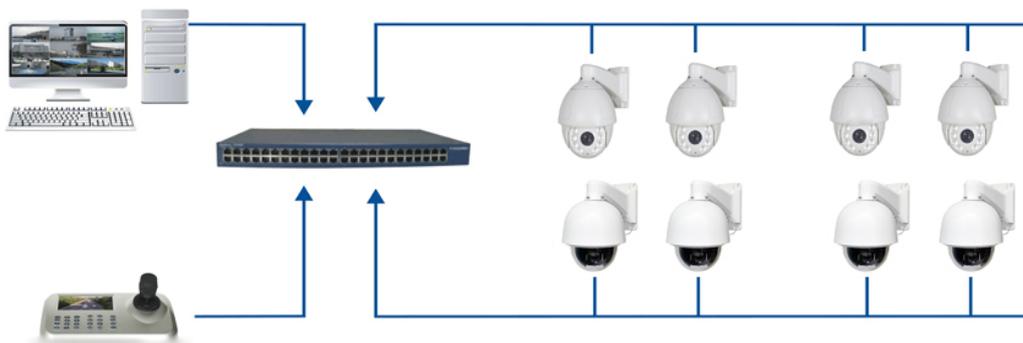


Fig.2

- ① Input power : DC12V/2A
- ② Reservation output interface:RS485 (not available now)
- ③ Power indicator
- USB interface : it is available for connecting mouse to operate network keyboard
- RJ45 network interface : through the IP switch to access network
- ⑥HDMI interface :Used for connecting Big HD Screen to realize synchronous switch between keyboard LED and the Big HD Screen

## 2. Keyboard function introduction

### 2.1 Connection



**Fig.3**

As above picture show, Ensure the keyboard in the same LAN with the devices.

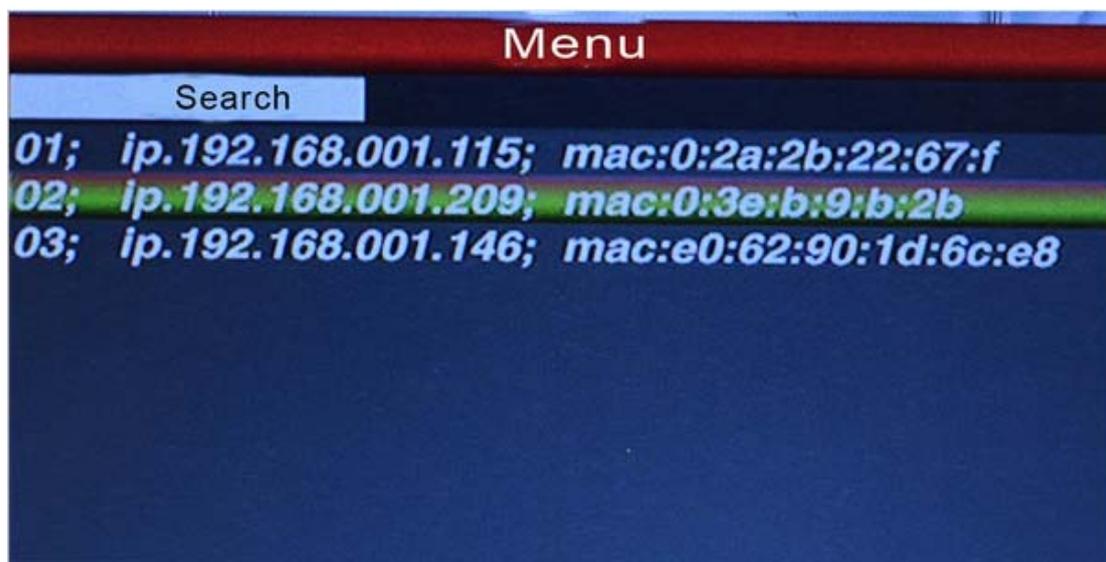
Remark: The keyboard supports "0" and "1" two different network segment. If keyboard or the device does not in these two segments, keyboard will not be able to add device.

### 2.2 Power on and add device

#### 2.2.1 Add device way under power on

When the keyboard is powered on normally, the automatic search IP interface will pop up 60min later, as below:

After IP search finished, the user can move up and down the cursor by joystick, select IP device needed to access device, press "Enter" then can save the device and display the corresponding IP image; when the screen displays image normally, then can be realized to control PTZ of the front dome.



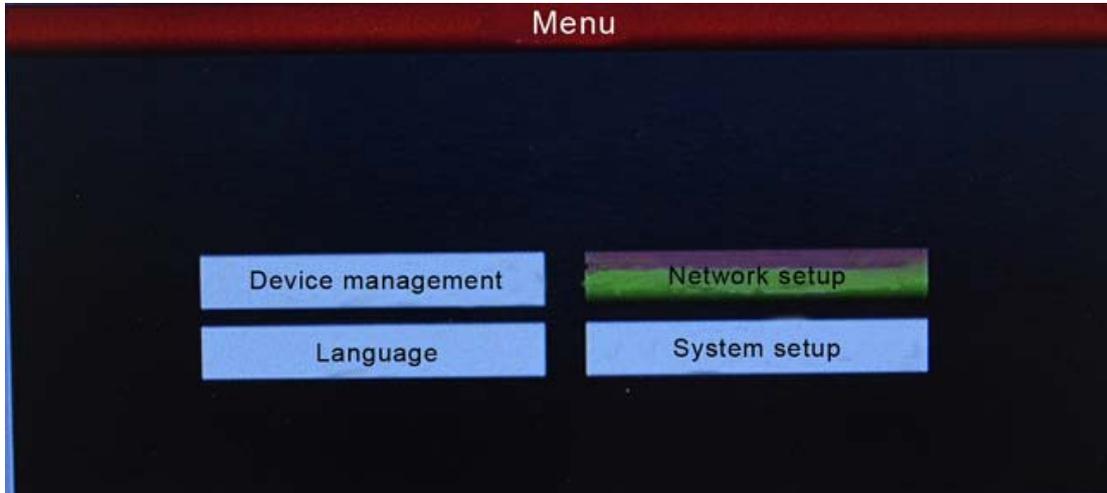
**Fig.4**

Remark : The keyboard supports power-off memory function. If re-power the keyboard and after finish self-test, it will be restored the IP image as previous power-off.

## 2.2.2 Automatic search and manually add device

### Automatic search

After the network keyboard connected to the front-end device, then press “Menu” on keyboard panel, then will pop up main menu interface as below:



**Fig.5**

Choose the “device management”, click “Enter” to the next sub-menu, select “search a dd” and confirmation. Please move the cursor to the top to select ”search” and click “e nter”, then can search and add automatically in the network PTZ of all area network. Select the IP address of the image, press ”Enter ”to save the corresponding image an d displayed.

### Manually add device

When access to other manufacturer’s PTZ, because of the limit of the port and PTZ log-in password ,there will exist that IP can’t complete add automatically, then can us manually add function now, the operation as below:

Click the “Enter”, select “device management”, “manual add”,enter to the following interface:



**Fig.6**

On the keyboard interface, input and fill in “IP address, port, name, password”, then press confirmation , then can display and save corresponding IP images.

Remark: 1. please check IP port, password and other information before manually add IP address.

2. “Menu” button is also the return button.

## 2.3 PTZ control and image switch

### 2.3.1 IP channel switch

As shown above figure 4, the user can switch image channel by the corresponding S/N with the left of IP address list.

Press “**Addr**” button under normal image display, and choice the corresponding S/N with the left of IP address list. Keyboard will switch into the corresponding IP address when you press “**Enter**” button. For example, switch into above figure 192.168.1.145 as the following way:

Please press “**Addr**” button; and press “No.3”; last press “**Enter**”.

Remark: Image switching except through the keyboard shortcut also can be introduced into products through equipment management. Please select the corresponding IP address and press “Enter” to save to come true.

### 2.3.2 Rocker operation and lens control

On the right side of keyboard, it's 3D vector rocker. User can easy to control PTZ and speed.

#### Direction control

User can pass moving rocker to control PTZ in different direction: left, right, up, down, up left, down left, up right, down right, rotate.

#### Zoom

Zoom in: Rotating vector rocker in right direction to make the lens closer.

Zoom out: Rotating vector rocker in left direction to make the lens farther.

#### Lens control

Six buttons to control lens: FOCUS+, FOCUS- ; ZOOM+, ZOOM-; IRIS+, IRIS-. These are used for focus, zoom and iris.

1. Focus: **Focus+** **Focus-** adjusting the focus distance. It can manually adjust image via “FOCUS+, FOCUS-” buttons. (Default of camera module is automatic adjustment)

2. Zoom: **Zoom+** **Zoom-** adjusting the lens distance. It realizes zoom in and out.

3. Iris: **Iris+** **Iris-** Iris function means change the value of F to make image realize bright or dim by manually adjust . (Default of camera module is automatic cursor, it is not available.)

## 2.4 Preset operation instruction

Preset instruction

Preset function means that store camera state (horizontal angle, tilt angle and lens spec) .It can realize recover the setting state in advance and call it.

### 2.4.1 Set preset

Rotating PTZ into the target monitored position. Press setting button “**Setup**” and choice

preset point, for example: “**1**” and press “**Enter**” button to finish preset setting.

Remark: 1. Preset point will replace the previous recording if you save the same preset number as the previous saved point.

2. It's no relate to save the quantities of presets , it is based on the front device specification .

### 2.4.2 Call preset

Please check if the preset point is successfully saved before you call preset. Otherwise, the operation is vain. Operation way as below:

1. Press “**Preset**” button ;
2. Input the preset number ;
3. Press “**Enter**” button. PTZ will automatically return to the preset point in advance.

### 2.4.3 Delete preset

1. Press “**Clear**” button;
2. Input the preset point which one do you want to delete;
3. Press “**Enter**” to delete preset point.

## 2.5 Tour,360 Scan and A-B Scan

All of Tour,360 Scan and A-B Scan setting ,you can use the short commands,Such as run the Tour function ,you just only press“**Preset**”+98+**Enter** , then the PTZ camera will be running all the preset automatically; 360° Scan:Preset 99+Enter;A-B Scan: Preset 92+Enter(only for Preset 1 to Preset 2 position).

The follow presets are predefined as special function,please Press the Preset No.+Enter to enable those function:

PRESET	FUNCTION	PRESET	FUNCTION
81	Auto Day/Night	84	Force on Far Light
82	Switch to Night	85	Force on Near Light
83	Switch to Day	92	A-B Scan
98	Tour 1	97	Tour 2
96	Tour 3	99	Pan Scan

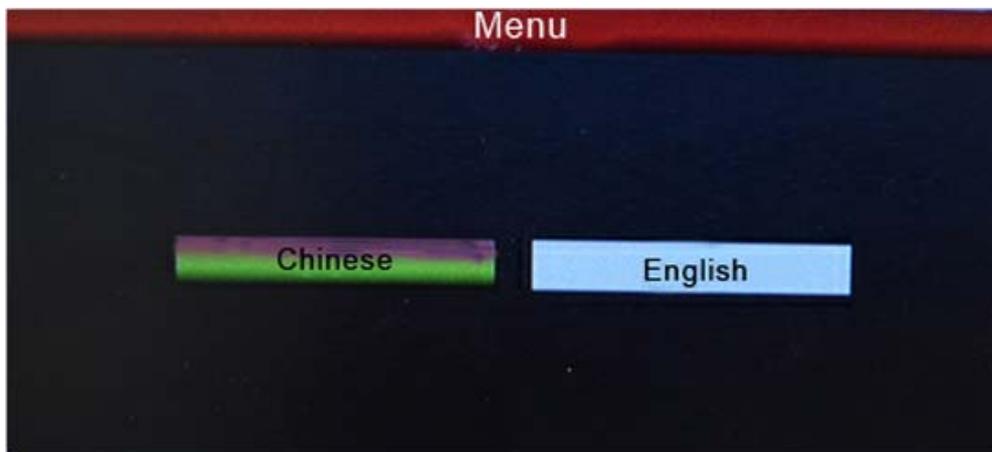
**Remark:** Please be noted that the special functions only for our controller, Since different control equipment have different protocol, if use some other controller, some special functions probably can't be effective.

## 2.6 Language

There is Chinese and English Language for optional

Enter to the Main OSD and choice the Language you need, press the button "Enter", then it would be save it automatically.

As below picture show:



**Fig.7**

## 2.7 LED Display

This Keyboard controller with the 5" LED Display, and Supports Main Stream and Sub-Stream for optional.

Press the button "Menu" Enter to the Main OSD, find the "System" item and choice the "Main Stream" or "Sub Stream", press "Enter"

Remark: LED Display could supports the Sub Stream of 4.0MP and above device, but can't with Main Stream.

## 2.8 IP address

The Default IP address of the keyboard is "192.168.1.188"

The IP address of the camera and keyboard must be in same Network Segment, and can't be same address, or there will be no image of the keyboard

Change the IP address of the Keyboard:

Press the button "Menu" enter to the main OSD and then fine the "Network", type into the IP

address you want.press the “Enter” to save it.after the keyboard auto-reboot,it’s changed Successful.

Remark:The new IP address must be in same network segment with the camera.

## 2.9 Exception Handing

Issue	Possible Reason	Solution
Can't add the Device	The conflict IP address with the IP camera	Change any one IP address of the keyboard or camera
Can't run the Tour	The command is inconsistent with the actual	Confirm that the command is same as above 2.5 item instruction show
Auto Reboot	Input power voltage is too low	Change it with the correct power supply
Get the IP address ,but can't add the Device	The cursor has been stuck in the search,when you add the device,the keyboard research again	Move the Cursor to the IP address to confirm which one you want to add it
After Power is applied,there is no working	1.Power supply doesn't work; 2.The master board of keyboard is broken	1.Change a new power supply 2.Contact factory for maintenance
Control insensitive	Differences between different manufacturers protocol compatible	Contact factory technical to upgrade the software
No Image	Access devices with higher resolution, does not support more than 1920 * 1080	Change the keyboard Stream as Sub Stream