

NETWORK KEYBOARD

User Manual

Please read this instruction carefully before using the product and keep it for further reference

Thank you for purchasing our product. There may be several technically incorrect places or printing errors in this manual. The updates will be added into the new version of this manual. We will readily improve or update the products or procedures described in the manual. The content is subject to change without notice.

Note

- LCD display can be easily damaged. Please do not press or exposure in sunshine for a long time.
- The joystick can be easily damaged. If it needs to be repaired, please wrap and ship it by using original or safety packaging.
- This keyboard should be used in certain range of temperature and humidity, referring the specifications.
- Please connect the keyboard correctly as this manual requires.

Items	Amount	Note
Network keyboard	1	/
DC12V power adapter	1	DC12V 2A
CD	1	Included user manual

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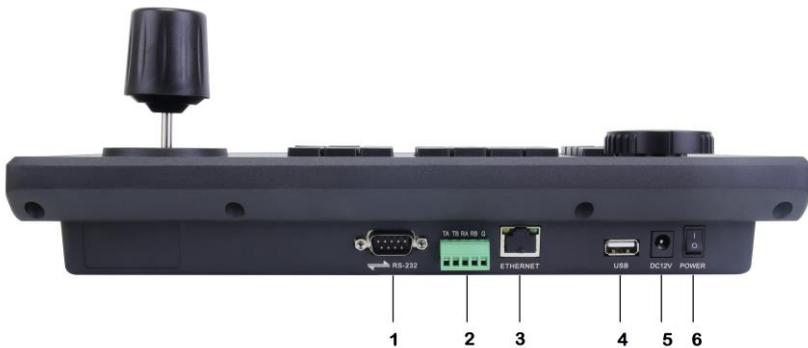
1 Introduction

1.1 Introduction

This network keyboard is fully compatible with the NVMS/CMS of our company, which can control camera, screen, monitor, etc. All menus can be displayed on the screen of the keyboard so that it's easy to use for users.

1.2 Rear Panel Instructions

The interfaces of the rear panel are for reference only. The real product shall prevail.



NO.	Name	Description
1	RS232	Connect speed dome
2	RS422	Connect speed dome (RA/RB/G: currently no function)
3	ETHERNET	RJ45 network port (PoE)
4	USB	Currently no function
5	DC12V	DC12V power input
6	POWER	Power switch

1.3 Front Panel Instructions

The following picture is for reference. The real product shall prevail.

Introduction



Name	Functions
MENU	Skip to the main menu of the current mode.
CAPTURE	Currently no function
SHIFT	In IP dome mode, press digital number + SHIFT to control this PTZ camera.
MULT	Set the screen display mode of the current output.
LAYOUT	Call plan.
WIN	Set the window of the current output.
MON	Set the TV wall.
CAM	Select the camera.
▶	Play
	Pause
■	Stop
●	Enable / disable manual record. (unavailable)
SETUP	Local setup, such as keyboard ID, network setup, etc.
INQUIRE	Search the speed dome list; in IP dome mode, select a speed dome and press “ENTER” to switch to this PTZ camera and then you can control this camera by your keyboard.
SEARCH	Currently no function
ADD	Currently no function
0-9	Input the number/ alphabet /symbol.

ESC	1. Cancel the number/alphabet; cancel the operation; return to the previous menu. 2. Press and hold the ESC button for 2s to lock the keyboard.
ENTER	Enter menu or confirm to save the current settings.
PRESET	Set and call the preset.
CRUISE	Call or stop the cruise.
TRACK	Call or stop the track.
AUTO	Enable or disable the auto scan.
FOCUS+	Click it to have long focus.
FOCUS-	Click it to have short focus.
ZOOM+	Zoom in
ZOOM-	Zoom out
IRIS+	Iris increases
IRIS-	Iris decreases
WIPER	Enable or disable wiper.
LIGHT	Enable or disable light.

1.4 Rules of Key Press

Double press--- the interval time between two presses less than 2 seconds. It mainly uses to switch the alphabet.

For example, press 2 twice to input A; press 2 three times to input B. Please see appendix for the detailed rules of key press.

When selecting or switching the operating object, it usually starts with the number key and ends with the corresponding functional key. Take the following as examples.

1+MON (press 1 and then press MON)—— select No.1 TV wall

123+CAM (press 1, 2, 3 and then press CAM)—— select No.123 Camera

10+PRESET (press 1, 0 and then press PRESET)—— call preset 10

1.5 Joystick and Knob Control

Joystick/Knob	Operation	Function
	Up	Control the speed dome to move up.
	Down	Control the speed dome to move down.

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	Left	Control the speed dome to move left.
	Right	Control the speed dome to move right.
	Rotate left	Zoom out
	Rotate right	Zoom in
	Rotate left	Focus-
	Rotate right	Focus+
	Rotate left	1. IRIS- 2. In the setup interface or its sub menu interface, rotate the knob left to move the cursor up
	Rotate right	IRIS+ 2. In the setup interface or its sub menu interface, rotate the knob right to move the cursor down

2 Setup

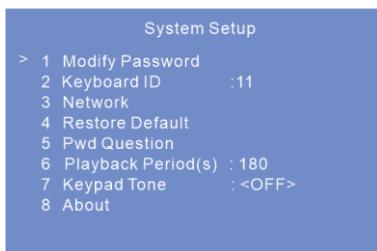
2.1 Startup the Keyboard

Connect the network cable to the keyboard and then connect the power. After the device starts, please enter the default password (8888) by moving the joystick right one by one and then press “ENTER” key to go to main/home interface (see left figure). Press “SETUP” key to go to the system setup menu.



2.2 System Setup

All system setup menus are as follow. You can move the joystick up or down to see all system setup menus.



2.2.1 Password Setup

1. Select “Modify Password” and press “ENTER” key to set the password.



Setup

2. Select “Old Pwd” and then press “ENTER” key to enter the old password. Enter the old password by moving the joystick right one by one (the default password is 8888). After that, press “ENTER” to save.

3. Select “New Pwd” by moving the joystick down. Press “ENTER” to enter the edition status. Enter the new password as the above mentioned method.

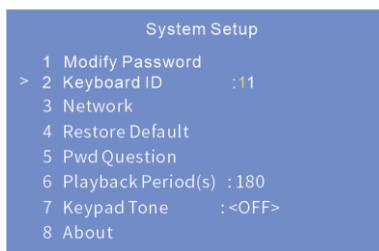
If you want to change the inputted number, please move the joystick to the position you want to change and then press the correct number. If you want to cancel the inputted number, you can press “0” for two times. Press “ENTER” key to save the new password. Press “ESC” key to return to the previous menu.

4. After confirming the new password, press “ENTER”.

5. Move to the “Save” menu and press “ENTER” to save the settings.

2.2.2 Keyboard ID Setup

Select the keyboard ID menu and press “ENTER” key to go to the keypad ID setup.



The effective value of the ID ranges from 1 to 32.

To set keyboard ID, press the digital number and “ENTER” key (eg. press 32 and then press “ENTER” to set the keyboard ID at 32).

2.2.3 Local Network Setup

Select “NETWORK” and press “ENTER” to go to local network setup. You can set the local IP address, subnet mask, default gateway, DNS 1/2 and HTTP port.



- ❖ IP address: Select IP address and press “ENTER” to set the IP address. The default IP address is 192.168.0.201.

Tips: Move the joystick right to set the IP address. Press “ENTER” to save the settings. Move the joystick down to set other network parameters. After you set all network parameters, select “Save” and then press “ENTER” to save all settings.

- ❖ Subnet mask: Select subnet mask and press “ENTER” to set subnet mask. The default subnet mask is 255.255.255.0.
- ❖ Gateway: The default gateway is 192.168.0.1. Please input it according to the actual network.
- ❖ DNS1: The default DNS server is 8.8.8.8. Please input it according to the actual network.
- ❖ DNS2: The default alternate server is 4.4.4.4. Please input it according to the actual network.
- ❖ HTTP Port: The default http port is 4000. Please input it according to the actual network.

2.2.4 Default Setup

Select “Restore Default” and press “ENTER”. Then press “ENTER” again to confirm to restart the device. After restarting, the device will restore to the default factory settings.

2.2.5 Security Question Setup

Select “Pwd Question” and press “ENTER” to set the security question which can help you reset your password once you forget your password.

2.2.6 Instant Playback Period Setup

Select “Playback Period(s)” and press “ENTER” to set the instant playback period when using the network keyboard to control video output of the decoder.

2.2.7 Keypad Tone Setup

Select “Keypad Tone” and press “ENTER” to turn on/off the keypad tone. After the keypad tone is enabled, you can hear a sound when pressing a key on the keyboard.

2.3 Platform Setup

Select “Plat setup” and press “ENTER” to set the platform connection parameters.



- ❖ IP address: Enter the IP address of the TV Wall Client of the NVMS.
- ❖ Port: The default port is 6003. The port must be the same with that of the TV Wall Client.

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- ❖ Name and password: The name and password must be the same with that of the TV Wall Client.
- ❖ Test: To test if the keyboard is online.

2.4 IP Dome Setup

Select it and press “ENTER” to go to the settings of IP Dome (PTZ camera) to set the parameters of IP domes.

Press “SETUP”, select “IP Dome Setup” and press “ENTER” to go to the IP dome setup interface. Select a PTZ camera and then set the IP address, port, name, password of the PTZ camera selected.

```
IP Dome Setup
> 1 IP Address      :010.015.002.162
  2 Port           :00080
  3 Protocol       :<Private>
  4 User           :admin-----
  5 Password       :*-----
  6 Clear
  7 Save
```

- ❖ IP address: Enter the IP address of the PTZ camera. This IP address must be in the same local network segment with the local IP address of the network keyboard.
- ❖ Port: The default port is 80 (the http port of the PTZ camera).
- ❖ Protocol: Choose “Private” or “Onvif” protocol as needed.
- ❖ User and password: The username and password must be the same with that of the PTZ camera.
- ❖ Clear: To clear the information of the PTZ camera.

2.5 Serial Port Setup

Select “Serial Setup” and press “ENTER”. In this interface, you can set PTZ speed, protocol, baudrate and address.

```
Seiral Setup
> 1 PTZ Speed      :8
  2 Protocol       :<PELCOD>
  3 Baudrate       :002400
  4 Address        :000001
  5 Save
```

PTZ Speed: Set the speed value as needed.

Protocol: PELCOD or PELCOP can be optional. Please select it according to the protocol of the PTZ camera.

Address: Please set it according to the address of the PTZ camera.

Baudrate: Please set it according to the baudrate of the PTZ camera.

2.6 Mode Setup

Select it and press “ENTER” to go the mode selection mode. Three mode options: platform mode, IP dome mode and serial port mode.

2.7 Language Setup

Select it and press “ENTER” to switch the language between English and Chinese.

2.8 Test

Select it and press “ENTER” to test if the button is available. User can also check whether the silk-screen on the button and display on the screen is consistent.

2.9 View Information

Press “SETUP” and select “About”. After you press “ENTER”, you can view the keyboard information, including keyboard number, model, SN, current mode, version, date, local IP, subnet mask and so on.

3 IP Dome Mode

3.1 Mode Setup

Platform mode, IP Dome mode and Serial Port mode are optional. Select PTZ mode and press “ENTER” to select. A maximum of 256 PTZs can be controlled. It also supports PTZ control via ONVIF protocol.

Tips: This device supports a default mode (platform mode or IP dome mode), namely it will restore to the last working mode after restart. In IP dome mode, you only need to select operational PTZ, do not need to choose the output and the window, and the other operations are similar to the platform modes.

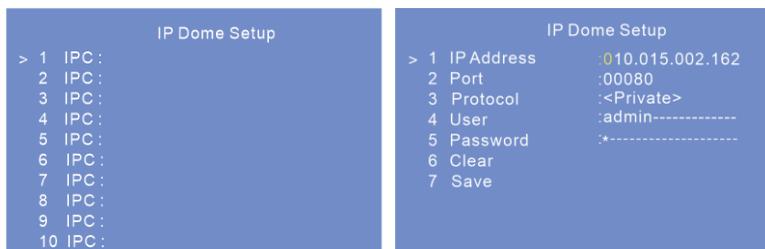
3.2 PTZ Operation

After setting up the IP address, port, name and password of the PTZ camera (See [IP Dome Setup](#)), you can operate the PTZ by joystick or PTZ control keys. Please see [PTZ Control](#) for more details.

3.3 IP Dome Switch

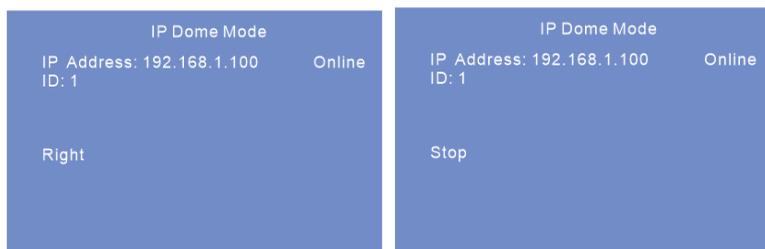
The operating IP dome can be switched by pressing “Number plus SHIFT”.

Select another IP dome and setup the IP address, port, name and password. Please see [IP Dome Setup](#) for more details.



Press “SHIFT” to switch the PTZ camera listed in the IP dome setup interface in sequence.

Press “Digital number + SHIFT” to switch to the corresponding IP dome. Move the joystick to control the IP dome camera. The current operation shows on the screen of the keyboard as shown below.



4 Serial Port Mode

4.1 Mode Settings

Press “SETUP” on the keyboard and select “Mode”. Press “ENTER” to switch to the serial port mode. In serial port mode, the PTZ camera can only be connected to the keyboard by RS422/232 interface directly. After the PTZ camera and the keyboard are connected, please configure the PTZ parameters.

4.2 PTZ Control

After the serial port parameters are set (See [Serial Port Setup](#)), please return to the main operation interface by pressing “MENU”. The PTZ camera can be controlled by the joystick or PTZ control buttons. The setting steps are similar to the PTZ control in Platform mode. See [PTZ control](#) for details.



Note: In serial port mode, many PTZ operations can be done, such as change direction, zoom in/out, adjust IRIS, call or set preset, etc.

5 TV Wall Control

Before using the network keyboard to control video output of the decoder in TV walls, please make sure the authentication server, media transfer server, storage server, alarm server and TV wall server of the NVMS all starts and they are all connected well with the decoder.

Note: If you choose the same monitor (window or camera), you can skip the steps of inputting the monitor (window or camera).

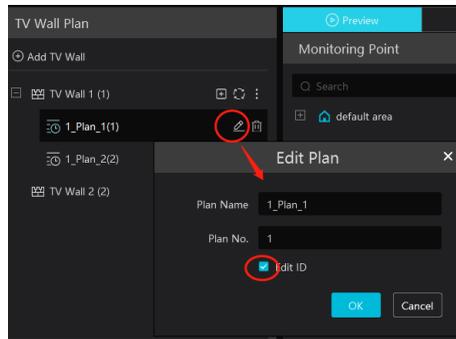
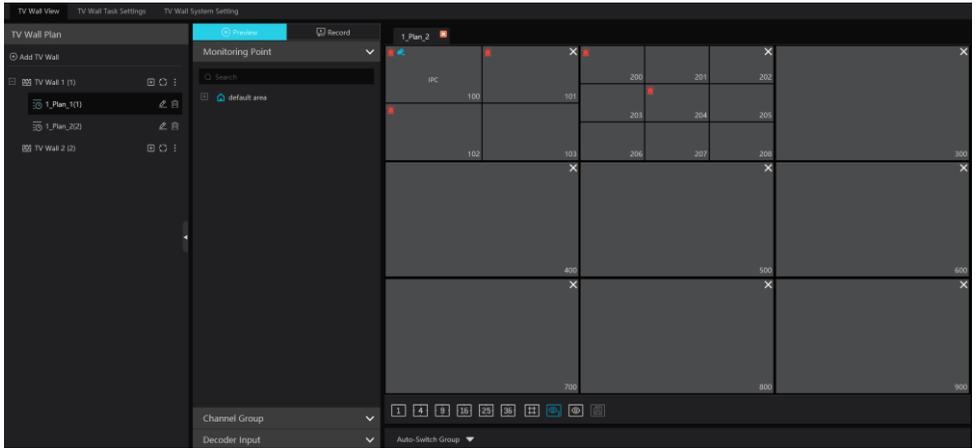
5.1 Call Layout

You may set the plan in advance and then call it through network keyboard. The operation steps are as follows.

1. Select a TV wall. For example: enter “1” and then press “MON” key to select No. 1 TV wall.
2. Select a plan (layout). For example: enter “1” and then press “LAYOUT” key to select Layout 1.



To set a plan: Go to Home→TV Wall → TV Wall View interface of the platform. Click  beside the TV wall name or click “Create Plan” (right click on the TV wall name to view this menu) to create a plan. Double click the plan name to show the plan. Then drag the monitoring points to the corresponding window respectively to decode images. When controlling plans, the number of the plan can be viewed through clicking TV Wall→TV Wall View. You can also edit the plan number in this interface. The setting steps are as follows: In the TV Wall Plan interface, click  beside the plan name to edit it. You can call the saved plan by entering number and pressing “LAYOUT” on the network keyboard. The effective value is form 1 to 9999.



5.2 Screen Display Mode

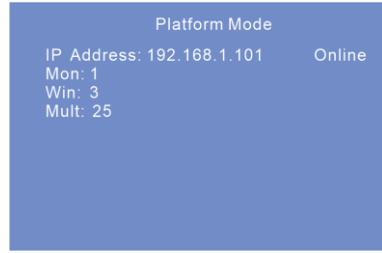
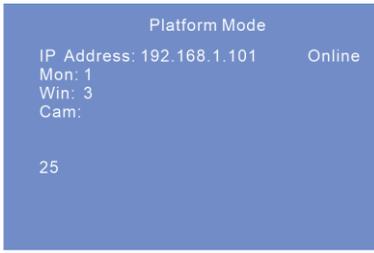
At present, one monitor (or output) only supports 1/4/9/16/25/36 screen display mode.

To set the screen display mode

1. Select a TV wall. Enter the number and then press “MON” key to call this TV wall. For example, enter “1” and then press “MON” to select No. 1 TV wall.
2. Select a window. For example, enter “3” and then press “WIN” to select No. 3 window.
3. Select the screen display mode. For example, enter “25” and then press “MULT” to select 25-screen display mode.

Then the No.3 window of TV wall 1 will be switched to 25-screen display mode.

TV Wall Control

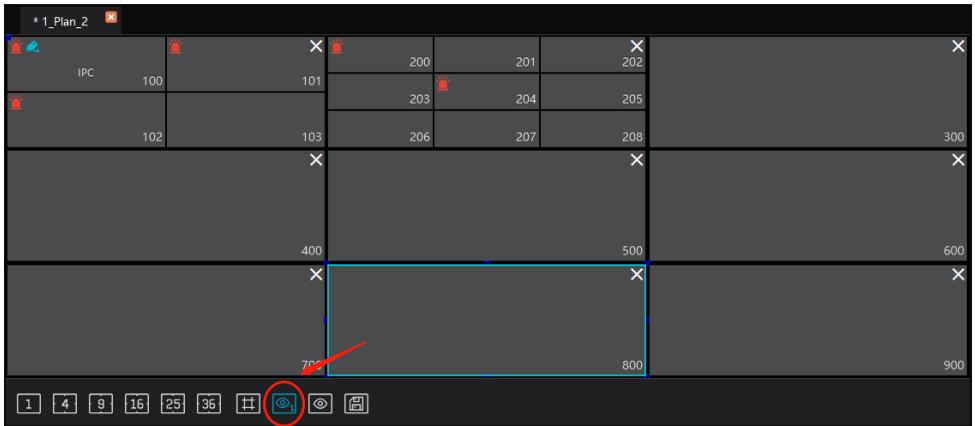


Note: * The effective value is from 1 to 999. The maximum number of the screen display mode of platform surveillance is 36 screens. As a result, a maximum of 36 screens can be called when controlling TV wall. Operation: Go to TV Wall →TV Wall View to create a TV wall.

* When controlling the output, you can view the TV wall number by clicking TV Wall →TV Wall View. You can also edit the TV wall number by clicking  and  as shown below.



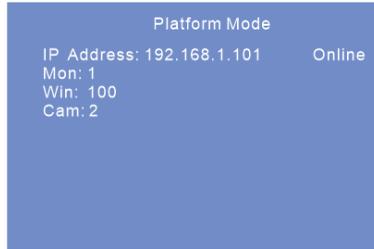
View window number: Go to TV Wall→TV Wall View. In the TV wall plan interface, click  to view the window number.



5.3 Camera->Monitor

Select the input signal (camera) to the designated TV wall and window.

1. Select a TV wall. For example, enter “1” and then press “MON” to select NO.1 TV wall.
2. Select a window. For example, enter “100” and then press “WIN” to select NO.100 window.
3. Select a camera. For example, enter “2” and then press “CAM” to select NO. 2 camera.



You can view the relationship between camera number and channel from NVMS (go to TV Wall t→TV Wall System Setting).

Note: The effective value of the camera is form 1 to 999999. When entering “0” and pressing “CAM”, it means to stop playing the current image.

5.4 PTZ Control

Only when the PTZ is input to the window and there is not auto-switch display in this window, can the PTZ control be effective—that is, the camera input to this window must be a PTZ device (or speed dome).

5.4.1 Move or Stop

The setting steps are as follow.

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Control the speed dome/PTZ by moving the joystick. When moving the joystick back to the original place, the speed dome stops moving.

Note: The camera input to the above example of NO. 100 window must be a PTZ device (or speed dome), or the calling is invalid. The effective value of the preset is from 1 to 255. The effective value of the cruise is from 1 to 8. The effective value of track is from 1 to 4. If the calling number is beyond the range, an invalid tip will be displayed on the screen.

5.4.2 Set or Call Preset

To set preset

1. Select a TV wall. For example, enter “1” and then press “MON”.
2. Select a window. For example, enter “100” and then press “WIN”.
3. Set the position of the preset by moving joystick.

TV Wall Control

4. Press the digital number on the keyboard to select the number of preset. Then press “PRESET” for more than 2 seconds to set the preset. For example, enter “1” and then press “PRESET” for more than 2 seconds to set the NO.1 preset.

To call preset

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Select a preset. For example, enter “1” and press “PRESET”.



5.4.3 Create, Call or Stop Cruise/Track

To create cruise

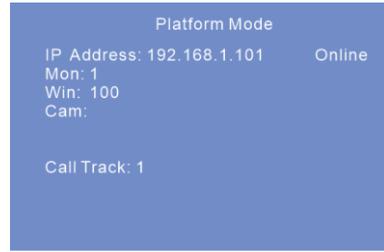
1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Enter the cruise number on the keyboard and then press and hold “CRUISE” for more than two seconds.
4. Enter digital number, press “PRESET” and then press “ENTER” to save the settings. Press “ESC” to cancel the settings.

To create Track

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example., enter “100” and press “WIN”.
3. Enter the track number on the keyboard and then press and hold “TRACK” for more than two seconds.
4. Move the joystick to control the moving track of the PTZ and then press “ENTER” to save the settings. Press “ESC” to cancel the settings.

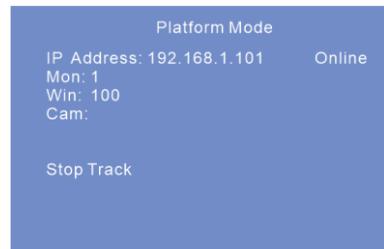
To call cruise/track

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Select a cruise/track. For example, enter “1” and press “CRUISE/TRACK”.



To stop cruise/track

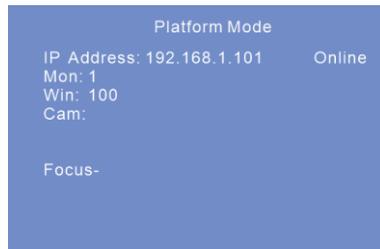
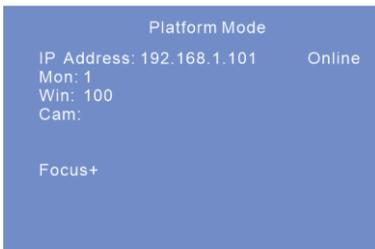
1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Select a cruise/track. For example, enter “0” and press “CRUISE/TRACK”.



5.4.4 Focus +/-

To set focus +/-

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press “FOCUS+” or “FOCUS-”.



5.4.5 Zoom +/-

To set zoom +/-

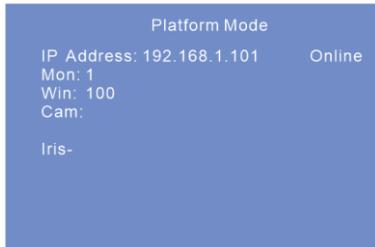
1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press “ZOOM+” or “ZOOM -”.



5.4.6 Iris +/-

To set iris +/-

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press “IRIS+” or “IRIS -”.



5.4.7 Start or Stop Auto Scan

To start or stop auto scan

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press “AUTO” to start auto scan; press “AUTO” again to stop auto scan.

5.4.8 Enable/Disable Light

To enable or disable light

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press “LIGHT” to enable light; press “LIGHT” again to disable light.

5.4.9 Enable/Disable Wiper

To enable or disable wiper

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press “WIPER” to enable light; press “WIPER” again to disable light.

5.5 Record Playback

5.5.1 Start Playback

You can play back the record saved in the storage server of the NVMS.

To play the record

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press  key to play the record.

5.5.2 Pause Playback

When the record is in playing mode in the current window, press the pause key to pause playback.

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press  key to stop playback.

5.5.3 Stop Playback

When the record is in playing or pause mode, you may stop playback. The setting steps are as follow.

1. Select a TV wall. For example, enter “1” and press “MON”.
2. Select a window. For example, enter “100” and press “WIN”.
3. Press  key to stop playback.

6 Web

6.1 Web Access

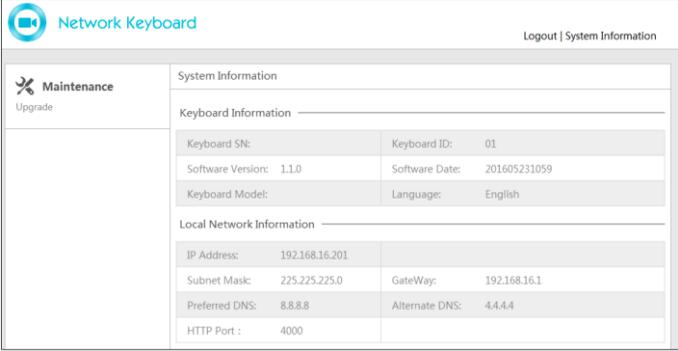
In order to view the keyboard from a network it may be connected to a LAN or internet. The network setup should be done accordingly.

- ① The keyboard should be powered on and connected to the network. Please see [Local Network Setup](#) for details.
- ② Set the local IP address and HTTP port. The default local IP address is [192.168.0.201](#) and the default HTTP port is [4000](#). You shall add the port number when typing IP address in IE address blank as [http://192.168.0.201:4000](#) into web browser.
- ③ Enter the password in the login window (the default password is 8888).



- ❖ Please make sure the IP address of the web client is in the same local network as that of the keyboard. If the IP address of the keyboard is 192.168.0.201, the IP address of the IP client must be 192.168.0.XXX.
- ❖ Some models may be searched by IP-Tool. Make sure the PC and keyboard are connected to the LAN and double click the IP-Tool icon to run this software. Then the keyboard can be searched; if the keyboard can't be searched, please check whether the PC and the keyboard are connected to the network or not. Double click the keyboard in IP-Tool and the system will pop up the web browser to connect to the keyboard.

You can check the system information. Click "logout" in the top-right corner and log out the Web client.



The screenshot shows the 'Network Keyboard' web interface. The top left has a logo and the text 'Network Keyboard'. The top right has 'Logout | System Information'. The main content is divided into three sections:

- System Information**: A header section.
- Keyboard Information**: A table with the following data:

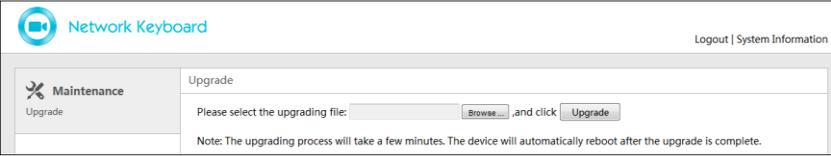
Keyboard SN:	Keyboard ID:	01
Software Version: 1.1.0	Software Date:	201605231059
Keyboard Model:	Language:	English
- Local Network Information**: A table with the following data:

IP Address:	192.168.16.201	
Subnet Mask:	225.225.225.0	GateWay: 192.168.16.1
Preferred DNS:	8.8.8.8	Alternate DNS: 4.4.4.4
HTTP Port :	4000	

6.2 Upgrade

Get the software from your vendor when there is a new software version.

1. Click “Browse” button to select the save path of the upgrade file.
2. Click “Upgrade server firmware” to start upgrading the application program.
4. After successfully update the software, the device will restart automatically.



The screenshot shows the 'Upgrade' section of the 'Network Keyboard' web interface. The top left has a logo and the text 'Network Keyboard'. The top right has 'Logout | System Information'. The main content is divided into two sections:

- Maintenance Upgrade**: A header section.
- Upgrade**: A section with a text input field for the file path, a 'Browse...' button, and an 'Upgrade' button. Below the input field is a note: 'Note: The upgrading process will take a few minutes. The device will automatically reboot after the upgrade is complete.'

Notice: You can't disconnect to PC or close the keyboard during upgrade.

Appendix

Digital number/ alphabet/symbol input rules are listed in the following table.

Key	The relationship between the frequency of key-press and input display								
	once	twice	three times	four times	five times	six times	seven times	eight times	nine times
1	1	,	.						
2	2	A	B	C	a	b	c		
3	3	D	E	F	d	e	f		
4	4	G	H	I	g	h	i		
5	5	J	K	L	j	k	l		
6	6	M	N	O	m	n	o		
7	7	P	Q	R	S	p	q	r	s
8	8	T	U	V	t	u	v		
9	9	W	X	Y	Z	w	x	y	z
0	0	blank							